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Relating to the Farm, the Garden, and the Household.

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The Farm.

The Wheat Insect.

We note that the hopes expressed that the late frosts would have the effect of destroying the wheat midge, or of diminishing its numbers have not been realized. A daily examination of several fields of wheat, and of several varieties, has duly impressed upon us the fact that the midge is likely to be as numerous and as destructive as it ever has been. Much of the wheat, at the time that frost happened, was not forward enough to serve the purposes of the fly. But whatever has grown since, or has become in any degree perfect, has been stung. From what we have observed, it seems evident that the fly has the power of depositing its egg in the wheat at a very young stage, and that after it is deposited it is hatched out within a very short time. We have taken heads and selected out seeds that did not seem to more than fill one-fourth of the husk, and yet the maggot could be seen just struggling into existence, and coming out of the bed in which the eggs had been deposited. In this stage it appears to the naked eye as a slight minute yellow speck upon the immature grain of wheat.

In noticing this insect, it should be understood by our readers that entomologists divide the life of insects into three periods, viz: the first, when it issues from the egg, and which is known under the several names of larva, caterpillar, grub, or maggot, as the insect happens to belong to a certain order. The second stage in the life of the insect is the pupa or chrysalid state; after remaining in this state for a time, the insect comes forth in its perfect state, and may be a fly, moth, beetle, butterfly or other insect as the case may be.

It is in the first stage of its existence that the farmer is more particularly called upon to notice the wheat fly, as it is in this stage that it is so destructive to his crops. It is in this state that it now may be seen in the

heads of the wheat plant, as a yellow maggot, presenting an appearance, when the husk of the grain is opened, similar to that of Figure 1. Figure 2 gives the form of the mature maggot highly magnified.



Fig. 1.



Fig. 2.

In relation to the action of the insect whilst depositing its eggs, we quote an extract from an essay on the subject of the enemies of the wheat, taken from the volume of Transactions of the State Agricultural Society for 1857, which will be issued from the press in a few weeks. It is as follows:

"The wheat midge makes its appearance in wheat fields just about the time when the ear is beginning to emerge from its leafy envelope, most commonly in the early part of June. It readily escapes the observation of persons ignorant of its character, or not looking out for it, but to an intelligent observer it may be seen on calm evenings swarming about in small undulating clouds, in the manner of gnats and other kindred species, and it is occasionally seen also in the mornings and during the day. Each female usually chooses as the receptacle of her eggs an ear just emerging from the sheath, and she introduces them by means of her ovipositor into the floret, and while doing so keeps her arms at right angles with the margin of the floret's glume, or outer husk. She is so engrossed with her occupation that she is not easily disturbed, and may even go on with her operation though a magnifying glass should be held close to her by an observer; and she slowly introduces her ovipositor, and slowly parts with her eggs, and then cautiously and deliberately withdraws the instrument. So many as thirty-five flies may sometimes be seen at one time upon one ear. M. Kirby, after some vain attempts to see the eggs pass through the long retractile tube, eventually witnessed that curious phenomenon. 'I gathered,' said he, 'an ear upon which some of the insects were busy, and held it so as to let a sunbeam fall upon one of them; examining its operations under the three glasses of a pocket microscope, I could then very distinctly perceive the eggs passing, one after another, like minute air-bubbles through the vagina, the aculeus being wholly inserted in the floret.' The eggs in passing through the oviduct, receive a coating of glutinous matter, which causes them to adhere firmly to the glumes or outer husk of the floret; and they are deposited in small clusters varying in number from two to upwards of twenty, and they amount in the aggregate to so vast a multitude as might seem to threaten terrible desolation or even utter destruction to wheat crops. The eggs are oblong, transparent, and of a pale buff color, and are hatched in the course of ten or fourteen days. The minute maggots which proceed from them have the same general form as other dipterous larva, and are at first transparent and colorless, but soon begin to assume hues of straw color, yellow, saffron and orange, according to their age. They then feed upon the young germ, perhaps eating the pollen or fructifying principle of the flower, thus preventing the impregnation of the grain, so that the seed never forms, and the parts of fructification lose all their vigor and shrivel and decay. So many as forty-seven have been counted in one floret, and even the smallest number ever present seem to be perfectly competent to do the work of destruction. The flies are not confined to wheat alone, but deposit in barley, rye and oats, when these plants are in flower at the time of their appearance. The maggots have been found within the seed scales of grass growing near to wheat fields. Being hatched at various times during a period of four or five weeks, they do not all arrive at maturity together. They do not exceed one-eighth of an inch in length, and many, even when fully grown, are much smaller. In warm and sheltered situations, and in parts of fields protected from the wind by fences, buildings, trees, or bushes, the insects are said to be much more numerous than in fields upon high ground or other exposed places, where the grain is kept in constant motion by the wind. Grain is commonly more infested by them during the second than the first year, when grown upon the same ground in succession, and it suffers more in the vicinity of old

fields, than in places more remote. They prey on the wheat in the milky state and cease their ravages when the grain becomes hard. They do not burrow in the kernels but live on the pollen, and soft matter of the grain, which they probably extract from the base of the germs. It appears from various statements, that very early and very late wheat escapes with comparatively little injury; the amount of which, in other cases, depends upon the condition of the grain at the time when the maggots are hatched. When the maggots begin their depredations soon after the blossoming of the grain, they do the greatest injury; for the kernels never fall out at all. When attacked in a more advanced state the grains present a shrivelled appearance. The hulls of the shrunk grain will always be found split open on the convex side so as to expose the embryo.

"Towards the end of July and the beginning of August, the full grown maggots leave off eating, and become sluggish and torpid, preparatory to moulting their skins, which takes place in the following manner: The body of the maggot gradually shrinks in length within its skin, and becomes more flattened and less pointed. The torpid state lasts only a few days, after which the insect casts off its skin, leaving the latter entire, except a little rent in one end of it. The cast skins are exceedingly thin and colorless, and through a microscope are seen to be marked with eleven transverse lines. Numbers of the skins may be found in the wheat ears immediately after the moulting process is completed. Sometimes the maggots descend from the plants and moult on the surface of the ground, where they leave their cast skins. Late broods are sometimes harvested with the grain, and carried into the barn, without having moulted.

"After shedding its skin the maggot recovers its activity, writhing about, but taking no food. It is shorter, somewhat flattened, and more obtuse than before, and it is of a deep yellow color, with an oblong greenish spot in the middle of the body. Within two or three days after moulting, the maggots either descend of their own accord, or are shaken out of the ears by the wind and fall to the ground. They do not let themselves down by threads, for they are not able to spin. Nearly all of them disappear before the middle of August, and they are rarely found in the grain at the time of harvest. In an account of the damages done by these insects in Vermont, in the summer of 1833, it is stated, that, after a shower of rain, they have been seen in such countless numbers on the beards of wheat as to give the whole field the color of the insect. Mr. E. Wood, of Winthrop, Maine, makes the following remarks: 'This day, 9th August, a warm rain is falling, and a neighbor of mine has brought me a head of wheat which has become loaded with worms. They are crawling out from the husk or chaff of the grain, and were on the beards, and he says he saw great numbers of them on the ground.' From this it appears that the descent of the insects is facilitated by falling rain and heavy dews.

"Having reached the ground, the maggots soon burrow under the surface, sometimes to the depth of an inch, those or them that have not moulted casting their skins before entering the earth. Here they remain, without further change thro' the following winter. In June they are transformed to pupae. This change is effected without another moulting of the skin. The pupa is entirely naked, not being enclosed either in a cocoon or in the preparium formed by the outer skin of the larva, and has its wings and limbs free and unconfined. The pupa state lasts but a short time, a week or two at most, and probably in some cases, only a few days. Under the most favorable circumstances, the pupa works its way to the surface before liberating the included fly; and when the insect has taken wing, its empty pupa skin will be found sticking out of the ground. In other cases, the fly issues from its preparium in the earth, and comes to the surface with flabby wings, which soon expand and dry, on exposure to the air. This last change occurs mostly during the months of June and July, when great numbers of the flies have been seen apparently coming from the ground, in fields where grain was grown the year before."

When the insect comes out in its perfect state, it is of the size as seen in Fig. 3, and the male when magnified is seen as we present it in Fig. 4. The female insect, when viewed under the microscope, presents the appearance seen in Fig. 5. When the fly is at rest

on the heads of the wheat plant, it presents an appearance similar to that seen in Fig. 6, and are described as follows:



Fig. 3.

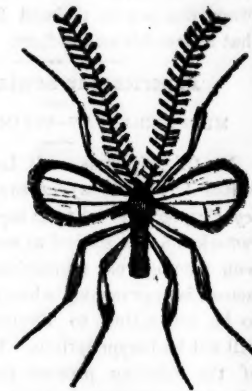


Fig. 4.

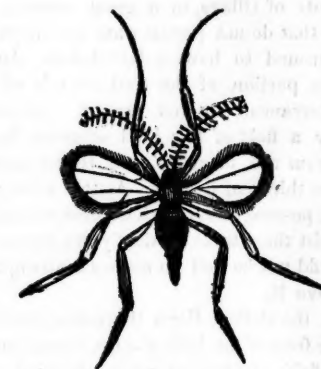


Fig. 5.



Fig. 6.

"The wheat-fly is very minute, scarcely exceeding the twelfth part of an inch in length, and resembling a small gnat or midge. The female is orange colored, her eyes are intensely black, meeting on the crown and covering nearly the whole head. The antennae are pale brown, long as the body and clothed with longish hairs; they consist of twelve joints, which, except two at the base, are oblong, oval, and narrowed somewhat in the middle. The abdomen is rather short and tapering to the apex, which is furnished with an ovipositor nearly three times as long as the body. The wings are incumbent in repose, longer than the body, yellowish white, and beautifully iridescent, or rainbow like, and fringed with delicate hairs. The two halteres, or poisers, are large and capitate. The six legs are long, slender and nearly of equal length. The thighs and shanks are equally long. The tarsi, or feet, five jointed. The claws are very minute. The male is more rarely seen; they are usually smaller than the females, and somewhat paler in color.—The antennae of the males are twice as long as the body, and consist of twenty-four joints, which, except the two basal ones, are globular."

The above description will easily enable our readers to recognize the enemy with which they have to contend, and possibly a study of his nature may aid them in devising means by which he may at length be overcome. That the frost has dealt severely with it, we doubt, and in fact do not believe that it has been of the least service. In some localities we have little doubt but that the insects had been warmed into an earlier perfection than usual by the long, mild and dry spring, and that they had in most cases laid their eggs, and thus done nearly all the harm they could, before the frosts appeared. The young were thus put out of the reach of being affected by the cold, and they were ready to be hatched whenever the weather was such as permitted them to come to maturity. The destruction of the crop so steadily each year by the insect, and its steady progress westward over the State, should cause us to consult as to what methods can be adopted to prevent its devastation and its increase, if there be any possibility of such a thing.

The State Agricultural College.

THE FARM BUILDINGS—No. 1.

A few weeks back, it was promised that the subject of the buildings for farm purposes, at the State Agricultural College should be discussed. It is an important one, both as having a bearing upon the College itself, and its economical administration; but also as being connected in some degree, with the whole agriculture of the State, present and future. In Michigan, a very large proportion of the farms and farming lands are inadequately supplied with buildings. Many have not any, and many again are recent improvements, on which as yet no permanent structures have been made, whilst at the same time there is much diversity of opinion as to what is wanted, and there are no general principles recognized, nor any rules known, by which the wants of the farm are to be met in the construction of the buildings to be placed on it. Hence, in discussing the subject of the buildings now on the farm of the Agricultural College, and what structures are needed, both with reference to the present state and its future wants, much must necessarily be said that will have a bearing on the subject of farm buildings, that will be applicable in a greater or less degree, to every farm in Michigan. For if there is a farm in Michigan that has as yet got all the buildings so complete, so finished, and in such order that they may be considered perfect, we have yet to learn where it is. Amongst those, the most perfect, probably, and certainly the best finished buildings in the State, are those of General Williams, of Lima, in Washtenaw county; but we doubt much if in the arrangement and plan of these the General himself considers them perfect, or not susceptible of improvement, or even as yet thoroughly complete.

In discussing the buildings for the use of the farm, there are two sections into which the subject divides itself: the first is, what are the structures now existing on the farm, and how well do they meet its present and future wants, either economically, or in connection with the educational requirements of the institution; the second is, what structures are immediately requisite, with a correct economical administration of the estate and institution in all its departments, and upon what general principles should the requisite farm buildings be erected, taking into consideration at the same time, the financial position of the institution, its immediate wants, in regard to the protection of crops, the profitable care of stock, and its steady increase of improved land, producing an increase of crops and of stock, to be provided for.

The only structure at present on the farm, which has ever been erected with a view to the accommodation of its farm wants, is a square shaped brick building 40 feet long, and 28 feet in width, consisting of three stories or floors. It stands against the side of a small knoll in the rear of the boarding hall, but somewhat to the eastward. The basement is divided into stalls on either side, the horses of the farm being kept in one side, and the work cattle on the other. The live stock is kept in the basement story, which opens on the end with double doors eight feet wide. This is wide enough to back a one-horse cart into the stable for purposes of cleaning, but this cannot be done, except for a short distance, as directly in the centre of the passage stand posts which act as supports of the upper floors. The stalls for the cattle and horses are each four and a half feet in width, with the exception of one on either side that is calculated for a double team. From the wall to the edge of the platform on which the cattle and horses stand is nine feet; at the edge of the platform was a sunken trough for the purpose of carrying away the liquid manure, and into which it was calculated that manure should fall. Close to the wall, and allowing about a foot in width for the base, are the racks to hold the hay, and in front is a trough about six inches in width, which it is supposed was intended for a water trough, but which is now used for a feed trough, as it is the only thing there is of the kind. The ox or horse fed out of this thing, has always to turn its head edgewise before it can get its muzzle into it so as to reach the food. This

occupies about ten inches more space, leaving only about seven feet for the ox to stand upon, and as he has to be accommodated with room from the point of his nose to the point of his rump, and is fastened with a rope round the horns, the consequence is that when he lies down, he is generally found with a portion of his body across the trough intended as the receptacle of manure, and of course filthy, and impossible to keep clean without a great deal of extra work. The stalls for the horses are got up in the same manner, but as horses take up somewhat less room to lie down, they are not in quite so bad a state as the work cattle.

The second story of this building consists of a single floor the extreme length and breadth of the building, and is reached from the lower floor by a set of stairs, at the most remote end of the stalls. This floor was intended to be on a level with the ground on the north side of the building, and is opened into by large double doors, that could permit a wagon to be backed into it, were the ground graded up. Along the sides are openings to permit hay to be thrown down into the racks beneath. These openings are about 18 inches in width. In the centre the greater portion of the floor is occupied by bins or rather boxes about four feet high, into which the feeder has to climb when the feed gets low so that it cannot be readily reached. These bins occupy so much of the centre, and the openings for the hay take up so much of the room at the sides, that there is no space on this floor for anything else. The third story, therefore, is all the space that can be used for the storage of crops. It is eight feet high between the floor and the roof which is flat, and it will be seen at the most could not possibly contain over twelve or thirteen tons of hay. This is the sole building for taking care of stock or crops that is on the farm, which it will be seen by the coming fall should have facilities for keeping at least 10 to 15 head of milk cows, ten to twenty head of three year old steers, fifty to seventy-five head of mutton sheep, forty to fifty head of hogs, with all the proper facilities for breeding with certainty and not at haphazard, besides the work stock on a farm of several hundred acres of new land, which is under a constant and steady course of improvement that consumes full one-half of all the labor expended on it, and also for housing the grain, corn, root, and fodder crops from nearly 200 acres under cultivation. The farmer who would undertake such a job as taking care of crops and stock, and making them pay with such an institution as this "brick barn," would be a laughing stock in any neighborhood, and he ought to be. And yet this barn has cost probably the price of a whole series of buildings that, if properly planned to meet the exigencies of this estate, would really have been of some utility. What it cost is unknown we believe, at least, it has not been possible to trace it out in any of the reports made relative to the institution.

Now this structure as a farm building violates every principle or axiom which is applicable to the class of buildings it represents:

First. A barn or barnyard for a farm should be conveniently placed with reference to the locality, position and area of the piece of land that comprises the farm. This is not located with reference to any other structure or system of buildings for such an estate.

Second. Its construction is such that it accommodates at the greatest expense the fewest number of stock possible. A barn for stock should be so contrived that at the least expense, it should accommodate the greatest number of stock.

Third. In the feeding of the stock, a barn should be constructed so that the feeding could be done with the smallest amount of labor, and the least possible waste. In this barn, the plan is such as to insure the utmost possible expenditure of labor, and the greatest waste. For instance, every time that a feed of hay is wanted, the feeder has to go up two pair of stairs to the third story, and either toss the hay out of doors, or thrust it down the stairway into the second story. Again, the grain is kept in open bins on the middle of the floor, and to feed it to the cattle, it has to be carried down and put in their narrow troughs.

Fourth. The barn or stable should be contrived so that the animals may be kept clean with the greatest ease, and their manure saved and carried out with the least labor. This structure is the direct reverse, and seems to have been contrived to follow the plan on which the stock kept in it should be in the filthiest condition possible, and so that it is as unhandy as it well can be to get the manure out. In it the harnesses, yokes, &c., have to be kept, yet there is no place to put them except an empty stall.

Fifth. A barn, when erected as the first structure on a new place, should be planned

so that it would form part of the series of buildings that every farmer knows must hereafter be erected as auxiliary to it. This structure, on the contrary, is so located and planned, that no addition can be made to it, without a very great expense, and it is doubtful if at any expenditure, the locality being taken into consideration, it could ever be made the best point for locating the main buildings for farm use.

Sixth. The barn and its surroundings on a farm of mixed husbandry, should be either for stock or crops, and should be calculated by their size and accommodations to afford room to protect the crops, and to promote the growth of all the live stock of every kind, as well as to afford the easiest facilities for taking care of the working and dairy stock. It will be seen that none of these properties can be claimed for the structure that now exists on the farm.

Experience in Sowing Wheat.

MEDITERRANEAN—ITS IMPROVEMENT.

Mr. Oly Williams, of St. Louis county, Mo., writes thus about wheat sowing, in the *Valley Farmer*, and we must say that we like his remarks on that subject as well as any we have seen coming from a practical man. As the season is approaching when the seed is again to be committed to the earth, this article will not be inappropriate. There is too much of the skinning process resorted to with wheat—our present method of culture is such as to suit the propagation of the fly, and our methods of tillage, in a great measure, are those that do not permit what seed is put in the ground to have a fair chance. Again, a large portion of the seed sown is of the Mediterranean, or red variety. There is hardly a field of this kind of grain that is free from rye, in many cases, to the amount of two thirds of a crop. As this variety of wheat possesses a certain hardness and ability to resist the attacks of the fly, we suggest if it would not be well to make an attempt to improve it.

On the College Farm there was, previous to the frost of the 10th of June, a most promising field of Mediterranean wheat; it was completely overshadowed by the rye which had been sown with it. The frost has so destroyed this crop, both wheat and rye, that it is now almost worthless as a grain crop. It was our intention, had this variety come to maturity, to have attempted to improve it by commencing this year a selection of the grain which would have been sown for next year's crop. The process of the attempt to improve would have consisted in taking sheaves of the grain and choosing the best heads, those best heads to consist only of those found to be most perfect in shape and apparently containing the largest number of grains, as well as the plumpest kernels. We believe this variety to be very susceptible of improvement. The Mediterranean, as grown at present, is too slender stalked, with a light, straggling, open head or spike, the spikelets not closely set together. The berry is longish shaped, not plump, inferior looking and small. We think that five years of steady application would render this variety twenty to fifty per cent. of greater value than it now is, and its ability to resist the wheat fly is certainly an inducement to make the trial. We know that it has already been observed, that as a general rule, this variety of wheat is now of better quality on many farms than when it was first introduced, thus giving indications that this climate and soil are well adapted to bring out its best qualities. But this cannot be done while it is grown in the most careless manner, and allowed to become filled with every sort of impurities.

In relation to sowing, hear what a sensible man says; of course his season of sowing is different from ours, and where he says October we say September.

"All fallow land for wheat should be completely turned on all vegetable matter—causing the same to rot before cross plowing.

Some farmers think that one plowing for wheat is as good as two. I must take the privilege of differing in opinion and experience with such farmers. My experience has taught me that first plowing nine inches deep throws the poor ground on top, which cannot be the best to plant wheat on. By the second plowing the rich loam from the bottom of the first plowing is raised to the top of the ground. Then a good two-horse harrow run the same way last plowed will leave the ground in good order for the wheat drill to follow, as the last plowing and harrowing will leave the grass and weeds, if any, laid in the right direction to obstruct the drill as little as possible. Every good farmer that has used the wheat drill (and none should be without one) knows, as well as I do, that the better ground is pulverized and cleaned of weeds and grass, the drill will be more certain to do the work well; but when ground is not half broken and left grassy and cloddy, as it sometimes is, and left in that situation to plant wheat on, the drill never should enter such a field, for the mechanic would never get any credit from such a farmer for wheat

drills. The above condition of ground for wheat to be planted in is on the extreme. Let us give the middle ground that all farmers can stand on, that do not choose the best way. Break your land six inches deep, nicely turned by the fifteenth or twentieth of September; harrow the same way, and the same land, the way it was plowed; the drill to follow the harrow; the wheat not planted so deep as to be on the grass or weeds turned under by the plow. If it is you cannot expect a good crop. Wheat cannot do well when sown on a bed of grass and weeds.

I see in the Patent Office Report of 1857, page 158, experiments made in planting wheat at several different depths, from one-half inch to six; one inch seems to be the best depth to cover wheat in England. Our fall seasons here are much drier than they are in England. My experience on my land: well broke, nine inches deep by the tenth of September and cross plowed to the bottom of the broken land by the first of October, and harrowed the same way last plowed, and sown with a good wheat drill, four pecks of good clean wheat to the acre. Now for the depth:—If the ground is well pulverized about one foot deep, and very dry, as our fall seasons generally are, you need not fear sowing your wheat six inches deep with a drill. I have more than once sown wheat under the circumstances, six inches deep, which came up fine and strong and did well and made about thirty bushels to the acre. I would not recommend so deep sowing, if good seasonable weather; although I do believe, from my own experience, our soil and climate will admit of wheat being sown, in good pulverized ground, from four to six inches deep (and especially in very dry seasons), and be safer from freezing out than shallower planted. My present crop is (the fifth year) sown on the same ground with the same kind of wheat, Zimmerman, and it never looked better. I wish to know how many years wheat can be sown after wheat and do well, and the cultivation best suited for the same. The plan I have followed for the last five years is to break my land as early after harvest as I conveniently can, so that all vegetable matter may rot by the commencement of cross plowing, which should be finished by the first of October. My rule is, to sow my wheat between the 1st and 10th of October, or as near that time as I possibly can; and have found, by many years experience, it to be the best time to guard against the fly and freezing out. I have not failed raising a good crop of wheat for the last twelve or fifteen years, as all my neighbors can certify."

Haying.

"That clover is almost ready to cut," is the exclamation, which may be heard every time, some judge of such matters passes along the road, and the owner exclaims, "well so it is." But the exclamation which should come from the farmer is, "well, we are ready for it." Now what does this readiness mean? Can any one tell? Every farmer in the State ought to be able to say that he was ready, and be able to point out how, and in what way he is ready. And first, is the clover ripe enough? What constitutes ripeness in fine clover? Should the plant stand as some argue that it ought, until it is nearly black, or become so dead ripe that the leaf and stem has lost all sap, and become brown in hue, with the seeds ripened in most of the heads? Or should clover be considered ready for cutting, when it has fully developed all its blossoms and first and earliest blooms have begun to turn brown? or should it be cut at a still earlier stage, when its greenness and freshness are unimpaired, and every tissue is swelled with sap, and at its fullest growth, and not a blossom has shown a symptom of decay?

But the time has come to cut the crop and preserve it for hay, and the main point to be ascertained is, are we all ready? and if we all cannot answer, is it because we do not know what being ready means. It is evident first, that no one can cut his clover, after he has decided that it is ready, unless he has the tools to cut it with. If it is to be cut by hand, are the scythes and snaths provided? are the scythes stones and rifles on hand? are the scythes ground, and hung on their snaths? If the crop is to be cut by horse power, is the machine provided, and has it been tried so as to be sure that it will work to perfection in all its parts? A mowing machine that has been laid aside since it was in operation last year, wants some overhauling; like all other machinery, it wants to be thoroughly cleaned of all dust and dirt, it should be taken apart, and at least all the gearing should be freed from rust, cleaned, and oiled, before it is again put together, and after it is put together, it should be worked for a little time, to see that it works freely, and that all its parts are properly adjusted, so that when the actual work of cutting is begun, no delay will be occasioned by the breaking or straining of some important part that has not been properly adjusted or attended to before the team and mower was brought into the field.

Again the mere getting ready to cut alone is not being ready to take care of the clover crop. It has to be raked and gathered after it is cut. Is the horse rake provided, and in working trim? If the crop has to be raked by hand, are there a sufficient number of rakes and forks provided for all the hands that

will work at the business of curing the crop after it is cut? Then again after it is raked and gathered and cured, it has to be carried to the barn or the stack. Are the wagons, and the hay rack, or riggings in good condition, so that they can be brought to work at once? And lastly, what arrangement is made for storing the hay? If it has to go into the barn, is that building in proper order to admit of the crop being at once delivered, or will a day or half a day be lost in cleaning out the bay, and making it fit to receive the crop. Or if the clover cannot be taken to the barn, and it is to be stacked, where shall the stacks be located,—in the field, or convenient to the stock to which it should be fed? Shall it be stored in the field for the mere purpose of sale, or will it be put at once where it will save all after labor in feeding it out, or in turning it in the most economical manner into flesh, muscle, butter, cheese, &c. It is the consideration, the settlement, and the ability to reply to all these points that I consider being ready for the cutting of the clover crop, and I would like to hear, Mr. Editor, from some of your experienced correspondents, whether they have any thing to add to these questions about getting ready to go a HAYING.

Yours,

BIG TIMOTHY.

Huron and Sanilac Counties.

A party of Commissioners from Tuscola, Saginaw and Huron counties have commenced the survey of the State road running from Sand Beach, in Huron county to Bay City, and thence to Midland City, in the county of Midland. From the Sanilac *Jeffersonian* we gather that the settlers in those regions are beginning life somewhat as the early settlers in Washtenaw did. It says, "The route for the first twenty-five miles of the road is reported as a very favorable one, a good part of the way being on a ridge, the soil generally is good and timber heavy. They passed on their route a settler's cabin, occupied by eighteen persons, old and young. The family had but recently moved in and they have already chopped, logged up and planted about five acres. They went in from Forestville, and their only outlet was by the same route. All their provisions and other necessities of life had to be transported from Forestville, a distance of twenty-four miles, over almost impassable roads. Dingman, one of the surveying party, is said to be so well pleased with Huron county, that he is determined, if possible, to sell his real estate here and move to Huron. Sebawing is his choice, and there he wants to pitch his tent."

From another column of the same paper we quote a description of the township of Bingham, in Sanilac county, communicated to the editor by the supervisor of the town:

"He says that three years since, in what now comprises the township of Bingham, there were but six inhabitants, and that at the time of making the assessment for the present year, there were two hundred and seventy inhabitants: or forty times as many. If there are any towns in this or in Huron county that can beat it, we would like to see the figures. The clearings and improvements have been extensive, and generally well done.

He adds, I would also call your attention to my much respected friend, Thomas Phillips, in town 16 north, of range 13 east, which is now included in Dwight township. He has made extensive improvements, of such a character that they would be a credit to any county, old or new, and all that he has done in the way of clearing up is done in the best of style; and says that there are a number of families in the same township who seem determined not to be outdone by any, and believes that there has been no assessment made there this year, as there was none last, and further adds, they are greatly in need of roads to enable them to get out.

The land is reported of excellent quality for all farming purposes. The soil a few miles back in Huron, as well as in this county, is far preferable to that along the shore, and when our counties are thoroughly cleared up and brought under cultivation, we shall be enabled to compete with any portion of the State. There seems to be greater interest manifested in the culture of the soil among the inhabitants now than at any previous time, and the crops put in the present season will amount to nearly double what has ever before been sown and planted.

There is no good reason why we should not raise as good crops and as large as any portion of Michigan. We have all the requisites of climate and soil, to bring to perfection nearly all the products of the northern half of the temperate zone, and when our State roads, already begun or in contemplation, are completed, the best of markets will be brought within the reach of all. Situated as we are on one of nature's great thoroughfares, there

is no reason why we should not rank high as an agricultural community."

[*Either a large family or a large story—which, Mr. Jeffersonian?]

Experience with Sheep.

My flock at present consists of about two hundred, mostly breeding ewes. They are about half French and half Spanish. Eleven years ago I purchased one hundred ewes and twenty-five bucks of the Guadeloupe Merinos from the flock of J. N. Sawyer, of Salisbury, N. H., and which were said to be imported by him. Five years ago last fall I crossed them with the French. I have some as high as $\frac{3}{4}$ and $\frac{1}{2}$ French, but, from my experience, about half French and half Spanish is the sheep I shall aim to keep. For the last three or four years my average yield of wool per head has been about five pounds. The fleeces are nearly all heavier than they were before crossing with the French. Aside from this increase I have a larger and much handsomer sheep.

I feed clover hay morning and night, under cover, and straw at noon at the stack. I believe clover hay is the best for sheep. I wintered my sheep one winter on marsh hay; they did very well, but the fleeces were not so heavy. I never feed grain of any kind to sheep, unless I have some unthrifty ones, which are kept separate from the rest of the flock. I deem it of vital importance that sheep have free access to water in the winter season. I have not lost over one per cent. annually for over eleven years, and with large flocks properly managed no greater loss need accrue.

Sheep of the Merino and Saxony families are smaller than most other kinds, but they produce the finest wool known. The size and quantity of wool per head has been an objection to these sheep. By some it is calculated that if the cash income of a large, coarse individual sheep is greater than that of a small fine one, the coarse sheep are the most profitable to the wool grower. These partial calculations are delusive, for it requires the same, or nearly the same quantity and quality of feed to produce a pound of wool or a pound of mutton, whether it be given to a large or a small sheep. The rational and safe basis on which a profit is to be calculated and decided, is upon the quantity and cost of food, and the greater value of wool and mutton produced therefrom. Fine sheep, ever since their introduction have been duly valued by some, and they are now coming into more general favor, and the demand is steadily increasing.

I intend to sell my sheep, together with several head of young cattle, a cross of full blood stock, at public sale in October next, of which due notice will be given in the *FARMER*.

H. K. FRITZ.

Jackson, June 23rd 1859.

A Query about Cheese.

We saw General Williams, of Lima, a few days ago, and he started a question relative to cheese making that perhaps some of our correspondents can throw some light upon.—For instance, does ice, when put into milk to cool its temperature down to the right point for making curd, affect the quality of the cheese? Would the cheese be better, if the ice were put in a vessel outside of the milk vessel? Some parties inform us that ice thus put into milk is apt to render the cheese less liable to keep for a long time. If the ice is taken from pure water, we cannot see that milk would be any more affected by the melted ice than by so much pure cold water, but if the ice should be formed of water that contained matters liable to create decay, or impurities of any kind, the curd would undoubtedly be affected by them, or the cheese itself would be liable to contain enough to cause decay. As a precaution it might be well where ice is used that there existed some uncertainty as to its quality, to keep it outside of the milk; but where it is pure, there can be no objection to using it.

Crops in Shiawassee.

The *Owassee American* says "As far as the growing crops are now concerned, Shiawassee has never been so well off as it now is from present appearances. From the most extensive inquiries of every portion of the county, we have failed to learn of half a dozen fields of wheat that have been injured by the frosts that proved so disastrous in many other sections of the State. In no locality has the midge been discovered, even with a magnifying glass where used, and a day or two more will place it beyond any contingency of damage from that insect. The yield throughout will be more heavy and the berry more plump than usual; while one-fourth more breadth of land is now in wheat than at any former year. The wool is still coming in, and more has already been purchased at this point up to this time, than was here purchased in all of last season. On the whole, Shiawassee county is to be congratulated on her bright prospects of the future."

The Garden & Orchard.

The Present Fruit Crop.

After the failure of the fruit crop of last year, the general expectation seems to have been that, with a favorable season, the yield of the present year would be abundant. Accordingly, with the opening of the past spring, a general disappointment was felt at the paucity of blossoms—many trees being entirely destitute of bloom, while a great portion of the remainder only displayed a few scattering clusters. This result is by no means to be attributed to anything unfavorable in the past winter or spring, (except in the case of peaches, the fruit buds of which were winterkilled,) but it will be recollected that last year was the regular "bearing year," and that the crop of that season was destroyed after the fruits were of considerable size. The trees, also, received a shock from which many of them have not yet fully recovered. It may also be considered doubtful whether, in case of full grown trees, of such varieties as have a habit of resting in alternate years, the loss of a single crop, even under the most favorable circumstances for the tree, would be sufficient to change the "bearing year."

So far as the observation of the writer has extended, wherever trees have bloomed at all, nearly every blossom has proved productive; so that we have a much finer show of fruit than might have been anticipated from the promise of the early spring. The frosts, which have been so destructive to vegetables and even field crops, came after fruits had attained considerable size, and, at least in this region, seem to have caused very little injury.

The crop of cherries is unusually large, and, on the writer's premises, the earliest varieties were in process of being gathered at the time of the last frost (June 10th.) On a few of the more delicate varieties, such as Belle de Choisy and Kentish or Early Richmond, a few fruits seem to have been injured, where fully exposed to the morning sun.

Early Purple Guigne and Bauman's May, which open the cherry season, this year ripened a few specimens that were eatable as early as June 1st, and were fully ripe and gathered by the 12th inst. The former is usually a day or two in advance, and is really beautiful and well flavored. It is, however, comparatively unproductive. Trees twelve years of age, have produced not more than a peck of fruit in a single season. Trees of Bauman's May, of the same age, have, this season, produced not less than two bushels to the tree. The fruit, however, is small, and, although beautiful, and agreeable in flavor, it is by no means rich. This last was placed on the rejected list at the last session of the American Pomological Society, doubtless on account of its small size and lack of flavor, and also, possibly, on account of a habit of cracking, if wet weather occurs at the time of ripening. With all its faults, however, it is, in the estimation of the writer, eminently worthy of cultivation. It is a strong and beautiful grower, with a habit much like Bigarreau; and is one of the hardiest of the sweet varieties. The fruits of Early Purple Guigne are sometime in acquiring their full color, and as they are so sparsely produced, generally, very few of them will be saved from the birds; while Bauman's May colors so rapidly, that bipeds of a larger growth are enabled to secure a reasonable share, in spite of the pertinacity of their feathered congeners. Since, therefore, the choice of planters of this fruit will be between Bauman's May, (May Bigarreau of some,) and, practically, nothing, the writer must demur to the action of the Society.

We are now (June 24th) a little past the height of the cherry season. The later varieties are rapidly coloring, while Mayduke, Belle de Choisy, Early Richmond, Flesh Colored Bigarreau, and several others, have nearly or quite disappeared.

At the exhibition of the State Horticultural Society, held at Detroit, last July, a few cherries were exhibited which had survived the cold storms of May and early June, which blasted almost the entire crop. Their appearance was certainly against them, and, doubtless, induced the following remark, extracted from the report of the fruit committee:

"We have thought that our climate is less favorable to the healthful growth of the cherry, and the perfection of its fruit, than to that of almost any other in the whole circle of summer fruits."

The committee were doubtless warranted in reporting unfavorably upon the fruits exhibited, and the calamities that have befallen this class of trees during the last four or five years, may well occasion despondency among planters, but the writer, from his own rather extensive experience, has abundant reason to state, that even sweet cherries have proved decidedly more hardy than either peaches or

plums. Prior to the year 1854, the writer is not conscious of having lost any trees, of either of these classes, from the severity of our climate; nor has he, since, suffered any losses of this kind, the cause of which might not fairly be traced to the injuries received during the two or three severe winters which then occurred in immediate succession. He had planted rather largely of each of those classes of fruit. Of Plums, more than ninety per cent. are dead. Of Peaches, about sixty per cent.; and of Sweet Cherries, perhaps thirty per cent. Duke and Morello varieties, even when worked on Mazzard stocks, may be said to be entirely hardy on the writer's grounds, although they are said to fail on this stock, in some parts of the State. If worked on Morello stocks, their fruitfulness appears to be increased by dwarfing the growth. This would doubtless render them hardy in any portion of the State.

The peach buds seem to have been mostly killed by the cold "snap" of the 10th of January last, except in favored localities. What constitutes such a locality, seems to be a matter difficult to understand, as all our theories seem to be at fault, in endeavoring to account for the "pranks" that "Jack Frost" occasionally plays with this fruit. In some places, with a high, open exposure, the trees have escaped; while, in others, a sheltered, eastern exposure, seems to have been equally fortunate. The age and thriftiness of the trees, and the quality and cultivation of the soil, seem, in some cases, to have affected the result. A few persons, hereabouts, are having fine crops, of this fruit; but, taken as a whole, the crop, in this region, will be very light.

The Plum trees of this region are mostly dead, and very few are being replanted. This tree would, undoubtedly, be entirely hardy here, were it not for the enfeebling effects of the leaf blight that attacks it a little after mid-summer, often entirely stripping it of foliage, and leaving it without the means of maturing its fruit, or ripening its wood. The writer's experience would seem to indicate that this disease may be checked, if not eradicated, by liberal manuring, and high culture. So long, however, as we have no self-operating means of heading the curculio, it is hardly to be expected that much attention will be given to the cultivation of this fruit.

Pears are producing a more than average crop. With the exception of a few varieties, this tree seldom over-bears, and it, therefore, fruits every year. It seems to have been unaffected by the influences that worked so disastrously upon the apple last season, and is, consequently, in a situation to produce its crops as usual.

The remarks at the commencement of this article apply with especial force to the apple, which is producing a lighter crop than is usual even for the "rest" year. We may account for this fact by the circumstance that those varieties that were most affected last year, seem to have not yet fully recovered their natural vigor. The season has been, on the whole, favorable, and the crop promises to be fairer than usual.

Strawberries escaped the frosts, and have done as well as usual.

Raspberries were, in some localities, almost totally cut off.

T. T. LYON.

Plymouth, June 28th, 1859.

New England Shrubs.

BY WILSON FLAGG IN HOVEY'S MAGAZINE OF HORTICULTURE

The Virginia Creeper.—The Virginia Creeper (*Ampelopsis quinifolia*), sometimes called the Woodbine, is a well known shrubby vine, which is universally admired having all the recommendations of the European ivy, except its evergreen foliage. This deficiency is, however, fully compensated by its greater luxuriance, and its habit of changing its verdure to fine crimson and scarlet tints in the autumn. No vine is so common as this in the New England States, as a drapery for houses and walls—taking the place which is supplied by the ivy in Europe. It is often trained so as to entirely cover one whole side of the largest dwelling houses in the city, and often completely envelopes the porches of country houses and some of the outbuildings. It is partially parasitic and supports itself by fibrous roots that proceed from its tendrils; but it needs some artificial support when trained to walls of considerable height. In this respect it is inferior to the Creeping sun-mach (poison ivy), which, if it were not for its poisonous properties, would be preferred as a climber, having a greener, a more enduring, and a more luxuriant foliage; and providing itself with a firmer support by means of its more numerous rootlets, that proceed from every part of its stem. The *Ampelopsis*, however, is a more extensive climber.

This vine bears inconspicuous, greenish flowers, without beauty and without fragrance. The fruit is of a bluish black color, and not inelegant, and ripening just at the time when the leaves and branches are reddened by the maturing influence of the autumnal sun. "The great variety of colors," Mr. Emerson remarks,—"shades of scarlet, crimson, and purple,—which the leaves assume, and the situations in which we see it, climbing up the trunks and spreading along the branches of trees, covering walls and heaps of stones, forming natural festoons from tree to tree, or trained on the sides and along the piazzas of dwelling houses, make it one of the most conspicuous ornaments of the autumnal months. Often, in October, it may be seen mingling its scarlet and orange leaves, thirty or forty feet from the ground, with the green leaves of the still unchanged tree on which it has climbed."

The Staff Tree.—There is another shrub, less known, though hardly less common than the creeper, like this plant, climbing over rocks and old buildings, but twining round other objects, and not attaching itself to its supporter by rootlets. It seldom attains a great height, and prefers moist and shady situations. This shrub, the *Celastrus scandens*, is well known to simplers, who call it Bitter-sweet, from the mingled sweet and bitter of its bright scarlet berries, which are the part that is used in medicine, in the form of a decoction. This preparation is said to be a mild tonic. In an English manual of medical botany, it is said that "a decoction of the young twigs of a species of *Celastrus* is used as a wash in the swellings produced by the shadow of the tree called lithi."

The leaves of this plant are single and ovate, and of a light green, fading to a deep yellow in the autumn. The berries remain on the vine and retain their scarlet hues all winter. I have not been able to learn why this plant is called the staff tree. It is probably the name originally given to some foreign species of an upright habit of growth, which was employed for the manufacture of canes and staffs. This vine has a very lively appearance, and is deserving of cultivation.

The *Staphylea trifolia*, or Bladder nut, is an allied species, though an erect shrub and not a climber. Its leaves are trifoliate, as its name implies. It bears its fruit and flowers in pendulous racemes, and is remarkable for its large inflated capsules. The kernels are of an oily nature, and good to eat. It usually attains the height of eight or ten feet, and grows in the borders of moist woods.

The Smilax.—The Green Briar (*Smilax rotundifolia*) is a very common, troublesome, and mischievous plant, tearing with its crooked thorns the clothes of every person that ventures through the place of its growth, and rendering a walk extremely disagreeable wherever it abounds. Still, the plant is not without beauty, having a smooth green stem, with all the flexibility of ratan, and climbing over shrubbery, and sometimes reaching the height of tall trees and twining itself among their branches. The leaves are broad, heart shaped and almost round, of the same color with the stalk; and the flowers, of a greenish yellow, proceed in spherical umbels from the axils of the leaves.

The Carrion flower, or herbaceous smilax (*S. herbacea*), is an allied species, so named from the fetid smell of its flowers. The only woody part of the plant is its subterranean stem. In its general appearance it resembles the former, the leaves being similarly roundish and heart shaped, and the flowers in similar roundish umbels. The fruit is dark blue, in showy, orbicular clusters.

The Raspberry.—The Rubus and its varieties are, with the exception of one species, not cultivated for ornament; but nearly all highly valuable for their fruit, which has been greatly improved by culture. Of this genus some are trailing vines, others are upright bushes. Among the trailing species, one of the most interesting as a natural ornament of the woods is the Dewberry (*Rubus sempervirens*), or evergreen blackberry, which is very common in shady woods and pastures, having a minute foliage, and berries about the size of large peas.

The leaves are of a dark shining green, resembling those of the strawberry, though smaller. They remain green all winter, becoming purplish at the opening of spring. This plant often covers, with its close network of trailing branches, large plats of ground, and is very productive, though its berries seldom have much sweetness. They resemble those of the high blackberry in flavor, and I like that species are late in coming to maturity.

The most common, the earliest and most valuable species in its wild state, is the Rubus canadensis, or low blackberry. This is the species which is most abundant along our roadsides and in fallow grounds. It does not climb upon walls, but invariably trails upon the ground, except where rocks and bushes interfere with it. In this respect it is distin-

guished from the Rubus padosus, or clustered blackberry, which usually supports itself upon walls and fences. The former is the earliest in ripening its fruit; its flower stalks are mostly solitary, while the padosus bears its flowers and fruit in a crowded raceme, mostly at the extremities of its branches. The early sort often extends several yards in length, while the clustered blackberry seldom extends beyond two or three feet, even in the most favorable soil. The latter is seldom erect, and is rather a prostrate bush than a vine, and commonly grows by the side of a wall and rests upon it for support. This species is often mistaken for the high blackberry, but it differs from it as much as from the early trailing species.

The High blackberry (*R. villosus*) is the most esteemed by cultivators, because it is susceptible of improvement by culture; but in its wild state it is inferior to both the two preceding species. It is always erect, about five or six feet in height, and never leans upon a wall or any other support. The fruit, in favorable soils and situations, is excellent, but in its best condition inferior to that of the canadensis or padosus, under similarly favorable circumstances. The Lovett blackberry is a variety of this species; the Lawton blackberry more nearly resembles the padosus. It is worthy of notice as may be observed by all who have been accustomed to gathering their fruit, that there are numerous intermediate varieties between all the different species. There are plants which equally resemble the villosus and the padosus. Then, again, there are intermediate varieties between the padosus and the canadensis. Last of all, though such intermixtures are less common, I have found the sempervirens as large as the canadensis, and evidently a hybrid variety of the latter.

The raspberry differs from the blackberry more in the character of its fruit, than in its botanical character. The species are all upright, though comparatively slender and requiring support. In their wild state there are two distinct species in this country, besides the flowering raspberry. These are the common Red raspberry (*R. strigosus*) and the Thimbleberry (*R. occidentalis*). The former is furnished with short bristles rather than thorns, while the latter is thorny like a blackberry. These species are very productive, especially in recent clearings. The former produces a more delicate fruit, but that of the last is scarcely inferior to it in flavor and sweetness. By cultivation each kind has been multiplied into several excellent varieties.

The most beautiful species, and one of the most attractive of our flowering shrubs, is the Flowering raspberry (*R. odoratus*). This is very common in old gardens, and is not inferior in beauty to the rose. The flowers grow in clusters, the petals being of a deep rose color, with a beautiful yellowish disc. The leaves are not pinnate, like those of the other species, but palmate, somewhat resembling a large maple leaf. The fragrance of the flower is similar to that of the bramble rose. The fruit is without value, though it is agreeable to the taste. It is rare in the vicinity of Boston, but is found in great quantities in the mountainous districts of Massachusetts.

HORTICULTURAL NOTES.

Some Floral Novelties.

We note that some of the London gardeners are calling attention to some novelties in floriculture that are worthy of notice. Amongst them we find the following:

The *Acacia grandis*, marked one of the most beautiful of the *Acacia pulchella* section, producing deep golden balls.

The *Callitriche pedata*, a new common annual with a white eye.

The *Celosia*, a new species, a most elegant plant producing a multitude of long spikes of feathery blossoms. Silvery white, shaded with bright rose, retaining its color perfectly when dried, and therefore admirably adapted to winter bouquets. It flowers out of doors or in pots from July to October.

Chrysocoma comarum—a fine evergreen shrub bearing a profusion of golden ball like flowers. One of the handsomest greenhouse plants now in cultivation.

Datura humilis flore pleno, a magnificent Brugmansia like plant, producing a profusion of deep golden yellow flowers; very large, double and sweet scented. Considered one of the greatest novelties of the season.

Solanum capsicastrum, a miniature orange tree, covered all winter with a profusion of scarlet fruit.

Bignonia radicans multiflora—Flowers in large panicles, producing a rich effect.

Tacoma ignea, a magnificent passion flower, unequalled for the brilliancy and splendor of its scarlet blossoms, far surpassing in this respect any of its class yet known. It flowers most profusely, grows rapidly, and covers a large space in an incredibly short time. In England it succeeds well in a cold greenhouse, and is marked "new and rare."

The *Isabella Gray Rose*, is noticed as flowering upon its own roots. Its blossoms are a bright yellow and very beautiful.

Lima Beans.

Lima Beans which have been planted a short time, will now be making their appearance above ground; when they once get their second

leaf, they seem to have acquired much strength, and to have got out of danger of everything except frost. All who grow Limabans, recommend that the leading shoots be pinched off as soon as the vines attain the height of six feet. This practice causes the bean plant to throw out side shoots, on which are more and better specimens of the fruit, than can be obtained by letting the vine grow, and extend over and above the stake or bean pole.

Lime in Transplanting.

It is asserted in an English publication of great merit, that a large plantation of trees has been formed in that country within a few years past, without the loss of a single tree; and this, says the writer has been effected by putting a small quantity of lime in the hole before inserting the tree. Four bushels of lime are said to be sufficient for an acre. The lime should be thoroughly mixed with the loam, in order that it may be reached by the roots, with equal facility, in every direction, as its principal effect is to push forward the tree during the precarious stages of its growth, and when the new fibres, beginning to start and ramify from the top and laterals, require a supply of ready appropriate and nutritive matter throughout their whole extent.

A Useful Provision for the Flower.

A very useful method of securing the rapid growth of young vegetables and also of making annuals throw out their finest blossoms, is to use liquid manure, but how to obtain that is a question with a good many, yet nothing can be more simple. First procure a common flour barrel that is tight, and bore a few holes in the bottom, set it on a piece of board, that has a few grooves made in it with a jackknife or any other instrument that will make them. Let the grooves all conduct to one main channel. Set the board and the barrel on two pieces of fire wood that will make them lean a little from the perpendicular to the front. When the barrel is thus set, put into it a few handfuls of straw, and then get some stable manure, wood ashes and a little lime and fill the barrel with the soap suds, and dish water of the house. The leach will very soon begin to run, when a vessel or tub, which may be made by sawing a flour barrel in two should be set under it, and kept there as a vat to supply the manure. Plants moistened with this liquid every other day will soon show its effects.

Mr. Albert Stacy in a paper on the cultivation of flowers read before the Concord Farmer's Club of Massachusetts, recommends the following, which he says he has found very efficacious, and which is also well adapted for vines and trees, and the receipt for which he obtained from Mr. Bull the originator of the famous Concord Grape:—Put a wheelbarrow load of peat into a half hog-head, fill with water, and add two pounds of potash to the mixture. Water the plants once a day with this mixture.

Melon Seeds.

The *Gardener's Chronicle*, in an article from the pen of Dr. Lindley notices that few plants are likely to be more uncertain than melons grown from seed of the finest kinds, if planted in a climate somewhat different from that in which the plant seemed to arrive at its greatest perfection. The French cultivators of the melon have noticed the same thing. Melons that are choice at Paris, the seeds of which have been tried at Bordeaux, have been found to be inferior. Here we are frequently notified of choice varieties being grown by some particular man, and the seeds distributed to different sections of the country, when that is the last that is heard of them. The fruit does not seem to be enough better than those usually grown to make the variety a subject of remark.

Indication Bee Hives.

A new stand for bee hives has recently been introduced amongst the bee keepers in England, which is made so that an index hand tells precisely when the bees are making honey and adding to their store, when they leave off, and when they commence to consume, and how much. This stand is constructed simply by having the platform on which the hive is placed, attached to a standard that slides up and down a wooden case as the piston of an engine slides up and down the cylinder. The standard, however, rests on a spring, the movement of which puts in motion a hand that indicates at once the difference in weight, and the amount is marked on a dial plate like that of a spring balance. The plan is said to have afforded great satisfaction to the bee keepers who have used them.

Wash for Bark Lice.

The *Working Farmer* gives the following as a remedy for bark lice, and also an excellent wash to clean the bark of fruit trees of all foul or injurious substances:

"The fungi on the bark of trees, scaly insects on pear trees, cocoon and ova of insects, &c., may be all removed by a few applications of the wash we have so often recommended. We are induced to write again on this subject in answer to the numerous inquiries made, as to the best method for cleaning the bodies of dwarf pear trees, &c. The ordinary soda of the shops, when heated to redness in an iron vessel, parts with water and carbonic acid, becoming caustic soda, sometimes called 'Bleacher's No. 1 Soda.' One pound of this soda dissolved in one gallon of water is the best tree wash in the world. Unlike potash, it does not kill or injure live plants; but rapidly decomposes dead bark, fungi, ova of insects, cocoons, scaly insects, &c. It may be applied with a sponge and then suffered to dry on the bark; the first rain or heavy dew will remove it, running down the bark to the soil, where it is worth all its costs as manure. In bad cases, such as scaly insect, hide bound trees, old trees with much dead or unsightly bark, it may require to be applied several times, and to be assisted by rubbing the trees while wet with a stiff brush and sand, or on trees while wet with other woollen cloth, sanded. The old carpet or tree, plums, &c., become really polished by its use, and insects find it difficult to attach themselves. Old apple bark decays and is thrown off as the tree expands, leaving a new and clean surface, and some producing fruit after having been useless for years. We believe that a clean surface to a tree is just as important as clean skin to an animal. The natural functions of the tree cannot be developed with an unhealthy bark."

FOREIGN AGRICULTURE.

Farming in Flanders.

FROM THE LONDON GARDENER'S CHRONICLE.

An inspection of the Flax districts of Flanders has resulted—as with the majority of travelers who have preceded us—in imbuing us with the profound conviction that a system of agriculture which can, with by no means promising materials, establish localities marked by the neatness of the fields, by the depth of their cultivation, and the richness of their crops, if not absolutely is at least very nearly perfect. By no means desirous to elevate the agricultural position of this wonderful country at the expense of that of England, still we deem our statement to be pretty nearly the truth when we say that the system of Flax cultivation in Belgium is altogether unique, and has no equal in any country. Nothing can exceed the untiring industry of the farmer in preparing the land, applying the manure, and carefully watching the progress of the plant in all its stages; the result is a condition of matters which from its perfect finish is an absolute treat to all interested in agricultural operations. You walk through districts which convey the idea of carefully cultivated garden plots rather than of farm fields, and it is only by a survey of their extent that you come to appreciate the extent and the value of the labor which must have been bestowed upon them.

With us the flax crop is by no means a favorite; looked upon as a plant which takes more than it gives, it is jealously regarded by most of our farmers. But if for no other reason than this, that flax cultivation involves good husbandry—for good flax crops and bad farming are altogether incompatible—and that it affords an excellent school for the practice of good modes of procedure, it is worth while inquiring how, and by what means the Flemish farmers have from time immemorial succeeded in raising fine crops of flax; not only maintaining, but actually increasing the fineness of its qualities, and all this without in any degree bringing about that exhaustion of the soil's fertility, which we are told is the almost invariable result of its cultivation elsewhere, so much so that it is more frequently looked upon as a robbing rather than a giving plant. That it is not to the fertility of the soil that the fine crops of flax in Flanders are to be attributed, a very brief inspection of it will suffice to show. We have before us a sample of soil taken from a celebrated district, at which we do not hesitate to say many an English farmer would turn up his nose as beneath his notice and unworthy of his cultural cares. It is to the careful working of the soil, the unstinted supply of manure, of which the quality and mode of action on the soil and plants is a matter of careful and anxious study; to an equally careful attention to the quality of the seed and the properties of the plant; and last, not least, by carrying out a well-considered system of rotation, in which long intervals are allowed to pass between the successive growths on the same soil;—it is to all this that the Flemish farmer owes his success in flax culture. Flax can be grown, and grown well, in a wide variety of soils, essentials being deep and careful pulverization of the soil, and the unsparing application of manure. Even a soil of almost pure sand will bear a good crop if well worked, and supplied both with solid and liquid manure; but the fibres grown upon this quality, although long and fine, are not so strong as those produced on better soils. The soil sought after by the experienced farmer is that which is new, easily worked, strong and very fertile; neither too wet nor too dry. The finest flax is obtained in the deep soil of a clayey sand or loam. In the strong, fat, humid soils the flax in good seasons grows to a great length, but is never fine in its filaments. In light soils the flax is shorter but the filaments are fine and silky. In Courtrai the soil is generally clayey sand. In the neighborhood of Bruges the soil is sandy, as also in the Pays de Waes, a part of East Flanders celebrated for the fineness of its flax.

The choice of seed exercises an important influence upon the flax crop. In Flanders two sorts are generally grown, that bearing white and that bearing blue flowers. The latter, which is cultivated chiefly in the Pays de Waes, gives a strong flax, which is generally mixed and worked along with hemp.—The former gives a finer and softer flax. The best seed is that which is bulky and heavy, and of a clear color, smooth and brilliant, oily, without mouldy or sour smell, and which sinks in water, and when burnt consumes rapidly and clearly. A very good test to put seed to is that of germination. For this they keep a piece of flannel extended and in a moist state, and on the surface of which they place a few of the seeds; if germination

takes place uniformly within 24 hours the seed may be relied upon; if it is retarded to a space of three to five days, and takes place unequally, the seed is not to be relied upon.—Two-year-old seed may be sown without inconvenience, but the object is to have seed of the same harvest—not mixed—so that it will germinate equally. The changing of the seed at intervals is necessary. Riga seed may serve for three or four years; after that it degenerates rapidly. The rotation adopted exercises an influence most important on the productiveness of the crop. In connection with this it may be taken as an axiom that the more rarely the crop comes upon the same soil the better the produce. Short rotations exercise a most unfavorable influence upon the crop, and wherever they have been introduced with a view to force production, the invariable result has been a deterioration in the quality of the flax. Where flax is cultivated *a la rames* (that is, where the plants are supported by a species of net-work formed of cords—this being done where filaments of the finest nature are required), the rotation extends over a period of eighteen or twenty years—this being necessitated from the demands which the flax thus grown makes upon the soil. For flax grown in the ordinary manner, the period over which the rotation extends should not be less than six or seven years. In the province of West Flanders, of which Bruges is the chief town, the rotation extends over a period of five to ten years; in East Flanders, of which Ghent is the chief town, it extends over a period of five to nine. Generally the flax crop succeeds the clover, rye, wheat or hemp. It loves new land, as a meadow or pasturage broken up. Astonishing crops are obtained from land in the neighborhood of towns where market-garden produce is raised from the great quantity of manure employed, as in the case of the onion, &c.

In West Flanders a six-years' rotation is as follows: 1st year, potatoes; 2d, rye with carrots—these being largely watered; 3d, flax; 4th, rye; 5th, turnips; 6th, oats. A nine years' rotation is as follows: 1st year, oats; 2d, flax and turnips; 3d, wheat, manured; 4th, rye or colza alone, or with clover; 5th, clover; 6th, wheat; 7th, potatoes or beans; 8th, oats with clover, sometimes with wheat; 9th, clover.

In the Pays de Waes (East Flanders) a seven-years' rotation is as follows: 1st year, potatoes, hemp, barley, or rye; 2d, after potatoes or hemp, rye or wheat; 3d, after rye or wheat, flax and clover, or flax and carrots; 4th, clover, and if carrots have been grown during the 3d year as above, rye; 5th, after rye oats, after clover barley or rye; 6th, buckwheat or rye, rye after barley; 7th, rye.—Where the oleaginous plants are cultivated, as rape, the following is a nine-years' rotation: 1st year, potatoes; 2d, flax and turnips; 3d, oats with clover; 4th, clover; 5th, wheat; 6th, rye; 7th, colza; 8th, barley; 9th, rye and turnips.

In connection with the manures employed and the mode of preparing the land for the reception of the seed, with the sowing, the weeding and reaping, there remain many points of practical interest yet to be adverted to; these we hope to overtake in another and early communication.

English Varieties of the Swedish Turnip.

All the varieties of turnip seeds which are now in bloom have been subjected to an unusual degree of frost and damaging weather. The effect of this severe treatment at this season will be experienced by the seed sower in a reduced crop, and much of it vitally injured. The numerous checks which the bloom has received imperfectly hastened the fructification, as well as diminish its fecundity. The mode pursued by some farmers of growing their own seed in a well-fenced enclosure, possessing good shelter, will be found to be advantageous in the rearing of turnip seed under such circumstances. Turnip seed of the best quality is obtained from plants which have been selected and transplanted from the field crop; and, in order to avoid the hybridizing tendency of the root, every attention should be paid to the situation of the field or enclosure in which they are planted, providing that the pollen of every kind be prevented from reaching the flower of the variety you wish to propagate. Having alluded to the varieties of the Swede in our last calendar, we shall now bring before the attention of the farmer the principal varieties, with their qualities, of our hybrid turnips, which may be said to combine the properties of the Swede with those of the common varieties.—One of the most extensively grown hybrids is that which was grown by Mr. R. Dale, of Libberton, near Edinburgh, distinguished from other kinds by its bushy top and large root of an oblong shape, with a small neck and tap-root. It possesses the advantage of ar-

rising early at maturity, and may therefore be sown at a later period of the season: suited also to withstand severe frost. From the manner in which Mr. Dale obtained this hybrid we might expect to find more of the properties of the Swede in its constitution that we do. But the character of its leaves and color of the root present unmistakable traces of its relationship to the common turnip. In the extensive turnip growing districts of Scotland a new purple top hybrid has been raised and introduced by G. Duff, Esq., of Eden, which partakes more of the character of the Swede-turnip than Dale's hybrid. The large Laurencekirk yellow tankard resembles Dale's hybrid in its oblong shape, and arrives at early maturity; and, as regards weight per acre, are found to be the most profitable to cultivate. Mr. Wm. Skirving, of Liverpool, produced an improved purple-topped bullock from two varieties called the green-topped bullock yellow turnip and the purple-topped yellow bullock, and are largely cultivated by turnip growers on the northwest coast. The green-top, or Aberdeen improved, as it is called by the turnip growers in Scotland, is that which is most extensively grown by farmers in England and Scotland. There is a yellow hybrid turnip still cultivated, called Gordon's yellow turnip, of an oblong shape, which with Skirving's Swedes and Scott's purple-topped hybrid turnip are considered the most suited to the high and exposed districts of our islands. We have another hybrid of a hardy constitution called the Border imperial purple-topped yellow turnip. The Highland and Agricultural Society of Scotland bestowed a premium in the year 1836 upon a turnip called the Pollexfen yellow, with a green top and a very smooth thin skin. It affords a firm and nutritious bite, of a good keeping quality, and not easily injured by frost. To these varieties of hybrids, which have all their excellent qualities, we must not omit to add the Cambridgeshire pudding Swede and Hood's new large yellow turnip—the former tankard-shaped, and the latter globular.

Physical Culture.

Dr. Windship, a young man of about twenty-five years, is giving lectures on Physical Culture in the eastern cities. The following account of him from a correspondent of "The Spirit of the Times," will be interesting to many of our readers as showing how bodily strength may be acquired, and even the weakest be made strong by their own efforts in the judicious exercise of their muscular powers:

"At the conclusion of the lecture, Doctor Windship illustrated the force and truth of his theory by lifting with his own hands, unaided by any strap or machinery, except such as nature has provided him, 826 pounds; he then lifted in the same way nine hundred and twenty-nine pounds! He then shouldered a barrel of flour weighing 216 pounds. Afterwards he exercised a hundred pound dumb bell in each hand with the same apparent ease that a man of common and ordinary strength would handle those weighing fifteen or twenty pounds. He then raised himself up by his little finger some four feet from the stage, and in this way continued to sustain his bodily weight three or four minutes. This was accomplished by attaching a strap to a pole, which was sustained by two men holding it on their shoulders. All this was done with apparent ease. The lecture, as well as the illustrations, was received with the wildest enthusiasm of applause by an audience of over two thousand of the most intelligent men and women of our metropolis, and among them were nearly all the members of the medical faculty, as well as large deputations from men of science, literature, and members of the legal profession, besides the professors and students of Harvard College; many of the teachers and pupils from the different schools in our city were also present. Doctor Windship has been requested by a large number of our scientific and literary men to repeat it, with the illustrations, which he will do on Saturday evening next, at the Music Hall.

"The interest of the lecture is greatly enhanced by the modest and unassuming manner of the lecturer in relating the reason that induced him to give so much attention to this too much neglected portion of the education of the young men and women of our country. It seems that when the Doctor first entered college he was a weak, pale-faced, puny, hollow-cheeked boy, possessing so little physical strength that his class-mates, who were younger than himself, made all sorts of fun of him on account of his marked physical inability; and they made him the butt of their jokes. Upon one occasion one of them offered him an indignity, which roused his temper, and he requested that it might not be repeated; it was, however, soon repeated, with other and more aggravated insults, by a larger and more robust boy of the 'freshman class,' in which young Windship

was a student. This indignity wounded his feeling and mortified his pride to such an extent, that he at once resolved, from that hour he would pursue a course of physical culture until he was able to resent the insult that had been offered to him, as well as to chastise the one who was the author of it. About three years afterwards he felt that time had arrived, and one day when his father visited him, he related the circumstance, and told him that on a certain day he had resolved to chastise the one who had offered him the indignity.—The father very naturally protested against any such procedure, and told his son, that "if he took such a course he would be disgraced by being expelled; and if he was turned out of college for such an act of insubordination, he never need look for sympathy or aid from his father." The youngster turned to his father and said: 'Father, I had rather bear the ignominy of being expelled from college than endure the mortification of remaining without properly resenting the insult offered me; and, besides, during my course of physical culture, I have learned that I am an independent boy! as, with this strong right arm, and a pickaxe and a spade, I can take care of myself!' On the day fixed, he called upon the one who had offered him the indignity, and made known the object of his visit.—It is sufficient to say that the boyish quarrel was settled, and that young Windship was never again insulted during his college life, but was beloved and respected by all his class-mates; while as a man of culture and intelligence, he will command no less respect from his fellow-men, than he did from his class-mates when a student."

A Boston paper gives the following sketch of a portion of Dr. Windship's address:

"Dr. Windship gave an account of his own experience in gymnastics, commencing with his seventeenth year, at college, where in two years his health was greatly improved.—Gymnasiums, he showed, had their abuses, from persons not properly trained trying to out-do others. Exhaustion and weariness should never be allowed to come. Lifting was a neglected branch, on account of the tendency of people to injure themselves with it. Yet, to a thorough hardening of the whole body lifting was necessary. He had commenced with five hundred pounds, and increased gradually, till on the 12th of May past he had lifted nine hundred and twenty-six pounds.

"Galen had calculated that the hips and legs could support two or three tons. There were other ways of lifting by which large amounts could be lifted. Not long since, with his hands and back together, he had lifted 1,500 pounds. There was a vast difference between lifting and sustaining. He would not advise any to train themselves up to lift over 500 pounds with the hands, or 2,000 with the straps. He had gone beyond that to ascertain what could be done. Totten and the Belgian giant were the only persons he had ever learned authentically to have lifted 800 pounds. Totten lived one hundred years ago, and was thirty years old when he lifted it. Dr. Windship said he had five years to that yet, and he hoped to train himself to lift 1,600 pounds clear.

"Next to lifting, dumb bells were useful.—One of his own weighed 141 pounds, and others one hundred pounds each. The rings came next. He had never practiced over half an hour a day, all that was sufficient to exercise all the muscles. He was five feet seven inches high, and weighed 153 pounds. In reference to practising, he would say, try no feat twice on the same day, if it was found to tire or exhaust in the slightest degree."

National Horse Exhibition.

We published a week or two since a notice of the Second Grand National Exhibition of Horses to be held at Kalamazoo, Oct 11th, 12th, 13th and 14th. The following description of the grounds and arrangements is taken from the Kalamazoo Gazette:

"It is said, and we think with much truth, that the Park, Tracks and arrangement of buildings, will be second to none in the United States, and we predict their Second Exhibition will, if possible, be a more complete success than the first. In the first place their Tracks will be much better, the trial track being a mile and four feet, from the sod, perfectly level, with a nice soil for the purpose, as it will pack perfectly, without being macadamised with stone. The sides are just eighty rods, straight, the ends half circle of same distance, leaving no corners to turn. The Exhibition Track being one hundred and twenty rods of same shape as first. The dining and retiring rooms when completed will be convenient and accessible. The Grand Stand will seat all the spectators and command an uninterrupted view of the whole grounds. The Judges' stand, Committee rooms &c., will be equally convenient. The stand and rooms for the accommodation of the

Editors, Reporters and Publishers will be erected for their exclusive accommodation, and are intended to answer the end for which they are built, and they will ever receive a warm welcome from the officers and stockholders. The President's Treasurer's Secretary's offices, will be convenient and ornamental. The stabling will consist of close box stalls, and be sufficient for the accommodation of all exhibitors, free. The Grounds in front of the enclosure, of some eleven acres are to be handsomely fenced, and ornamented with shade ornamental trees, fountains, &c., a nice spring being fortunately on the hill, on south side of grounds. In fact the officers and stockholders are determined to make it the model Park of the West.

They have heard from the following Rail Road Companies, who will convey passengers to and from the second exhibition as follows:

The Western Rail Road from Boston to Albany, Horses free.

The New York Central, horses and actual grooms free.

The Great Western of Canada, Horses and actual grooms free, and passengers at half fare.

The Michigan Central, Horses and actual grooms free, passengers half fare.

The St. Louis, Alton and Chicago, passengers and horses half fare.

The officers are in correspondence with other roads, the result of which will be duly given."

The amount to be distributed in premiums is \$3,000.

FARM MISCELLANEA.

Agriculture in Sanilac.

In the Sanilac *Jeffersonian* of the 23d inst, we find the proceedings of a meeting of the citizens of that county held at Lexington on the 18th for the purpose of organizing a County Agricultural Society.

Articles of association were adopted, and the following officers elected. John Sheldon, President; Geo. Smith, Vice President; W. S. Mills, Treasurer; Charles Waterbury, Secretary; Daniel Wisson, Matthew French, Charles Decker, Joseph Kinney and Calvin Fenton, Directors.

Sanilac is a new county, and it is represented as being very fertile, and favorable for farming purposes. We hope to hear a good account of their first agricultural fair.

The Australian Wheat.

This variety of wheat is evidently a very prolific kind. In several cases where we have noticed some large heads, we have counted 96 and 100 grains in a single spike. The head is regular in shape almost like barley, bearded long, with the grains closely and compactly set one against another. There is no wheat that has a stronger growth of straw. Of its ability to resist the fly we are as yet unable to speak. We notice, however, that in all that portion of the Soule's wheat which has a little vitality, the young larva of the wheat fly is already to be found, very minute, it is true, but when put under the microscope as lively and vigorous as a young serpent.—In the Australian we have not yet noticed this pest.—*College Farm, June 23.*

The Great French Henery.

The readers of agricultural papers, and also of newspapers, will recollect the account of a "tremendous" poultry yard in France where a certain French Doctor near Paris bought up dead horses, and kept an immense number of fowls, at most wonderful profits, from the sale of the eggs and chickens. It seems that a Mr. Samuel Cooper, of Boston, wrote to a friend of his inquiring into the truth of the matter, and he was written back that the whole affair is a humbug! So says the New England Farmer.

A New Wheat.

A new wheat is noticed as growing in Virginia, named the *Boughton wheat*, which ripens two weeks earlier than the wheat usually grown in the vicinity. The editor of the *American Farmer*, Baltimore Md., says "its early quality is undoubted. This year it is stated that it would be ready to cut the last week in May. Would not this variety be worth a trial here by way of trying to get ahead of the insect."

Sale of Ayrshire Bulls.

We note that two of the Ayrshire Bulls imported by the Massachusetts Society, and selected by Sanford Howard in Scotland, were sold at auction in Boston. "Troon" a three year old, was bought for \$62.50, and "Tam Samson," a two-year-old, brought \$117.50.—These bulls must have cost as much as \$250 to \$300 per head, and the prices given do not seem to indicate that the Massachusetts people appreciate imported stock. Poor as the times are here, we think we could have got better prices for them here in Michigan.

Central New York Crops.

John Johnston of Geneva, writes to the Boston *Cultivator*, that he never recollects seeing the prospect of oats and barley as bad as what it is at this season owing to the drought.

NEW ADVERTISEMENTS.

W. M. PORTER, Detroit, Singer's Sewing Machines.
E. TAYLOR, Detroit, Agricultural Warehouse.

STATE FAIRS FOR 1859.

Illinois, Freeport, Sept. 5-9.
Vermont, Burlington, Sept. 18-16.
Kentucky, Lexington, Sept. 18-17.
Ohio, Zanesville, Sept. 20-23.
Indiana, New Albany, Sept. 26-30.
Iowa, Oskaloosa, Sept. 27-30.
Canada West, Kingston, Sept. 27-30.
Michigan, Detroit, Oct. 4-7.
Maine, Augusta, Sept. 13-16.
New York, Albany, Oct. 4-7.

COUNTY FAIRS FOR 1859.

Macomb, Utica, Oct. 19-21, John Wright, Sec'y.
Lenawee, Adrian, Oct. 5, A. Howell, Sec'y.
Northern Lenawee, Tecumseh, Sept. 21, 22.
Oakland, Pontiac, Oct. 13, M. W. Kelsey, Sec'y.
St. Joseph, Centerville, Sept. 28-30, D. Oakes, Sec'y.
Genesee, Flint, Sept. 28, 29, T. H. Rankin, Sec'y.
Allegan, Allegan, Sept. 28, 29, H. S. Higginbotham, Sec'y.
Jackson, Jackson, Sept. 28-30, D. Upton, Sec'y.
Kent, Grand Rapids, Sept. 28-30.

MICHIGAN FARMER.

R. F. JOHNSTONE, EDITOR.

SATURDAY, JULY 2, 1859.

What of the Crops.

The prospect of the crops, seem brightening at the west. From a large portion of the great grain growing districts, accounts are very favorable. Southern Ohio, Indiana and Illinois, all seem to speak as though there had been no "set back" in any of the crops; and even in those districts which had suffered most from the frost, the reports received of corn, and other crops, except wheat, seem to show that the blight was only felt as a transitory one which the favorable season since had almost obliterated. The Cincinnati *Price Current* has letters from many portions of Ohio, all seem to agree that much of the wheat has recovered, and is not so badly hurt as it was at first reported. The letters from Indiana speak in the most glowing terms of the corn crop. From Illinois there are the same kind of reports, whilst in Central Illinois they speak very well of the wheat which is now being harvested. In Western Pennsylvania, the injury to fall crops seems to have been very severe, and the Pittsburgh papers seem to sanction the idea that wheat has been entirely cut off there. Buckwheat is reported as in great demand, and is selling there at \$2.50 per bushel for seed.

In many parts of Michigan, we note that the reports of the crops are much more encouraging than they were, and the feeling is that though in some localities many individuals have lost their wheat, yet it is conceded the damage is not generally so very heavy as it was at first feared and decided to be. In some places the wheat has shown wonderful power of recuperation. But in other cases it stopped growing at the time of the frost, and since then has turned yellow. Many fields in the counties between the Central and Detroit and Milwaukee Railroads have been mowed down, preparatory to being sown with buckwheat. Oats in the same section have been suffering a good deal from drouth, but late rains have given this crop a fine healthy start, and a better color, and within the past few days this crop has improved in every way. The corn which was twice cut down is at last beginning to make up for lost time, and now has a healthy appearance. That which was planted the second time, is now coming up healthy and strong, and though small and rather late, yet it gives token of a vigorous condition. The potato crop is spoken of also as looking well, and growing rapidly.

With this state of the crops, the scarcity of money, and the decline of prices on the other side of the Atlantic, farmers must look forward to a decline of prices as soon as harvest becomes general. With the great stores of breadstuffs that remain over unconsumed in Europe from last years crops, and the crops of this year promising most abundantly, there is little hope for any advance in rates for the next six months, but in fact every sign of a decline, unless some extraordinary disaster or blight occurs, that no foresight can provide for. The latest arrivals show a decline in the British markets, even below the rates which had previously prevailed. This is the time of the year generally when the English markets are most firm, as from this time to September, the stock of grain is generally low and great dependence has to be placed on foreign supplies. The low prices indicate that not the least fear is felt as to supplies to last through till that time, but that the promise of the crop is such as to preclude all speculative feeling at this time. Prices of grain and breadstuffs are well maintained in our western markets, and we note that in Chicago

go with the new crop beginning to come forward, there is quite a firmness in prices, on what grounds none seem to know as yet, beyond the fact that occasionally in such a market as that is, there will be all sorts of fluctuations. Meanwhile, in spite of the very great stiffness in the back manifested by dealers in Chicago and Detroit, we look for a crooking of the joints in the course of the next six weeks that will not be at all for the benefit of grain growers.

The War and Its Aspects.

The European war seems to be assuming an aspect and character that are less selfish than such wars are generally. Since the defeat of the Austrians, and the entry of the Allied armies into Milan, the Emperor of the French has issued a proclamation, which seems to assure the world, if there is any reliance to be placed in the words of princes, that the sole aim that he has in view is to establish in Italy a government that will be welcome to all Italians, and which will free a people oppressed by foreign tyranny from a yoke the most galling, and from which there is no hope of their being able to free themselves. This proclamation, taken in connection with the change of Ministry in England, seems to give assurance that the war, not only will not be European, but that it is likely to be short, and with a definite end in view. The German aristocrats are of course warmly in favor of Austria, but we begin to note that there are symptoms breaking out that a large portion of the intelligent Germans favor the principle for which Napoleon claims to be fighting, namely, the freedom of Italy from the Austrian yoke, so that we think there need not be the least fear that the German Confederation or Prussia will aid Austria or mingle in the conflict. Besides Russia seems to be standing by to see that the combatants have fair play, and no interference from outside interests. Meanwhile we note that the Hungarian element is beginning to move, but how far this will be permitted to work depends somewhat on the success of Napoleon. The Austrians have now taken a new position, have fallen back upon their reserves, and must make a grand stand with the idea of checking the onward stride of the Allies across Lombardy; there must soon be another great conflict, if in that conflict the fortune of war should prove to Louis Napoleon that Austria was stronger than he expected, and he should sustain a check or reverse, we think that then he would most willingly call upon the Hungarians, and aid to put the means in the hands of Kossuth and his compatriots, of once more trying the fortunes of a revolutionary enterprise among the Magyars. In that case we might hope to see the most odious despotism in Europe overthrown, never to rise again, and we do not know any people that would regret its downfall.

How the Markets are getting on.

The Wool market is almost over for this season and, as a general rule, wool growers by being firm, have obtained good prices. We do not mean to say that the wool clip is all sold, on the contrary we think there have been few seasons when there has been so much wool remaining in the hands of the wool growers. They have been better posted this season as to the worth of the article, and the firmness they displayed, did not permit the speculators to enter into the market, hence there have been fewer buyers, but they who did purchase, bought directly for the manufacturer, and as there were not two or three profits to be made, the seller got nearly the full worth of the article. In few cases have the prices been so low as they were last year, though there were many attempts to bring them down, and even an attempt at a combined action on the subject. But this attempt was not successful and prices resumed their higher rates. It is very certain that there are some pretty large quantities of foreign wools seeking the American market, but by no means the quantities which interested parties would have us believe there is.

We noticed some time ago that it was not likely the war would have any real effect on the wool market; as yet its influence has hardly been felt, and although it was held up as a bugbear to excuse the low rates sought to be enforced during the clipping season, it has proved just as we said it would, one of the mere ruses adopted to affect the views of sellers, without any adequate foundation. The war now going on is not likely to affect either the wool growing or wool manufacturing nations, for this year at least, and we think all the speculations about the European war are of such a doubtful character, that very little reliance can be placed in them, as a guide relative to the wool market. It is probable that during this month there will be considerable lull in the market for wool, the manufacturers having laid in a supply, and

there being but little demand, prices may decline more than at any time during the year. But as wool growers will generally be busy in the harvest field, such a state of the market need not worry them into making any sacrifices, as it is likely that after July and August, there will be a better market.

"By Their Fruits Ye Shall Know Them."

On Monday last the hands in the FARMER office were made glad by a bountiful treat of most delicious cherries from the orchard of our horticultural correspondent, Mr. T. T. Lyon, of Plymouth. Of the four varieties sent, Belle de Choisey, Black Eagle, Bigarreau or Yellow Spanish, and Reine Hortense, each in turn was pronounced "the best," till the next was tried. The effort to come to some final decision was kept up till all hands retired from the table, convinced only that each had, for once in their lives "had all the cherries they wanted!" and still enough were left to keep the taste good for half a day to those who chanced to pass by the table, which all found it convenient to do very frequently.

Thus all are satisfied that Mr. Lyon not only writes "exceeding well" on fruits, but that he understands how to raise them, and knows where they will be suitably appreciated. For this kindly remembrance the FARMER office returns him a unanimous vote of thanks.

The Gold Regions.

Pike's Peak and the War are the two great topics of interest just now, and as the first is nearest home and one in which our readers will be likely to feel most personal interest, we devote a column to Mr. Greeley's description of the newly-found "diggings" about which so much excitement has been made recently. The following is an extract from his letter to the New York *Tribune*, dated "Gregory's Diggings, June 9, 1859:"

"This narrow valley is, densely wooded, mainly with the inevitable Yellow Pine, which sheltered from the fierce winds which sweep the mountain tops, here grows to a height of sixty or eighty feet, though usually but a foot to eighteen inches in diameter. Of these pines, log cabins are constructed with extreme facility, and probably one hundred are now being built, while three or four hundred more are in immediate contemplation. They are covered with the green boughs of the pines, then with earth, and bid fair to be commodious and comfortable. As yet, the entire population of the valley—which cannot number less than four thousand, including five white women and seven squaws living with white men—sleep in tents, or under booths of pine boughs, cooking and eating in the open air. I doubt that there is as yet a table or chair in these diggings, eating being done around a cloth spread on the ground, while each one sits or reclines on mother earth to enjoy. The food, like that of the Plains, is restricted to a few staples—Pork, Hot Bread, Beans and Coffee forming the almost exclusive diet of the mountains; but a meat-shop has just been established, on whose altar are offered up the ill-fed and well-whipped oxen that are just in from a fifty day's journey across the Plains, and one or two cows have been driven in, as more would be if they could here subsist. But these mountains are mainly wooded, while the open hill-sides are so dry during summer that their grass is very scanty. It is melancholy to see so many over-worked and half-starved cattle as one meets or passes in this ravine and on the way hither. Corn is \$5 per bushel in Denver, and scarce at that; Oats are not to be had; there is not a ton of Hay within two hundred miles, and none can ever be brought hither over the present road at a cost below \$40 per ton.—The present shift of humane owners is to herd their oxen or mules on the rich grass of the nearest prairies for a week or so, letting them subsist on browse and a very little grass, and then send them down the mountain again. This, bad as it is, seems the best that can be done. Living of all kinds will always be dear at these mines, where American Flour is now selling at the rate of \$44 per barrel, and Bacon is worth 50c per pound; Sugar ditto.

"I presume less than half the four or five thousand people now in this ravine have been here a week; he who has been here three weeks is regarded as quite an old settler.—The influx cannot fall short of five hundred per day, balanced by an efflux of about one hundred. Many of the latter go away convinced that Rocky Mountain gold-mining is one grand humbug. Some of them have prospected two or three weeks, eating up their provisions, wearing out their boots—and finding nothing. Others have worked for the more fortunate for \$1 per day and their board and lodging—certainly not high wages when the quality of the living is considered. And I feel certain that, while some—perhaps many—will realize their dreams of wealth here, a far greater number will expend their scanty means, tax their powers of endurance, and then leave, sored, heart-sick, spirit-bro-

ken. Twenty thousand people will have rushed into this ravine before the 1st of September, while I do not see how half of them are to find profitable employment here. Unless, therefore, the area of the diggings shall meantime be greatly enlarged—of which there is no assurance—I cannot imagine how half the number are to subsist here, even up to that early setting in of winter which must cause a general paralysis of mining and consequently of all other Rocky Mountain industry. With the gold just wrested from the earth still glittering in my eyes—and one company has taken out to-day, at a cost of not more than \$25, a lump (condensed by the use of quicksilver) which looks like a steel yard poise and is estimated as worth \$510—I adhere to my long-settled conviction that, next to outright and indisputable gambling, the hardest (though sometimes the quickest) way to obtain gold is to mine for it—that a good farmer or mechanic will usually make money faster by sticking to his own business than by deserting it for gold-digging—and that the man who, having failed in some other pursuit, calculates on retrieving his fortunes by gold-mining, makes a mistake which he will rue to the end of his days."

Literary News.

Magazines Received.—Harpers for July, with its pages on pages of fine illustrations and excellent reading matter, historical, biographical, literary and sentimental.

The Atlantic Monthly, full of good things as usual of the more sober, substantial and unillustrated sort.

Blackwood, the favorite of the foreign reprints with its "Luck of Ladysmede," and many another treat to those who are so lucky as to get it.

Godey, ever brilliant with fashion plates and flowery literature.

The Ladies' American Magazine, with some showy pictures and astonishing efforts in the line of love story-telling.

Merry's Museum, a charming little picturesque pamphlet for the children.

In the Agricultural and Horticultural line we have a new Semi-Monthly published at Baltimore, Md., by Sands & Mills, called the *Rural Register*; a large quarto of 16 pages, which promises to do good service in the field of progress.

The *California Cultivator*, vol. 1, No. 11 and 12, have reached us. This is a beautifully printed and illustrated monthly, after the type of the Horticulturist. It is published at San Francisco; W. Wads worth, Editor and Proprietor. Each number is illustrated with a handsome, colored fruit piece, and is filled with matters of interest to the farmer and orchardist. Terms \$5 a year.

The *Horticulturist* for July is on hand with its valuable contents, and a frontispiece of the Tokon Grape.

The *American Farmer*, Baltimore, Md., commences a new volume this month.

General News.

—A frightful accident occurred on the Michigan Southern Railroad, on Monday night the 27th June, at a point between South Bend and Mishawaka. It was caused by heavy storms undermining or loosening an embankment of some thirty feet in height, down which the train was plunged with all its living freight into the foaming torrent rushing through the ravine beneath. The extent of the loss of human life is not yet fully known, but up to this time upwards of forty persons are known to have been killed, others have died or are dying from injuries, and some still unaccounted for are supposed to have been swept off by the flood into the St. Joseph, near which the disaster occurred. It was midnight, and the terrors of the hour were increased by the darkness, and by the storm which was raging at the time.

—Over three hundred Norwegians passed through Detroit on their way to the West, on Tuesday the 28th ult.

—A young man in Illinois died last week from being stung by a honey bee. Remedies were applied, but he went into convulsions and expired in less than an hour.

—A severe hail storm passed over Genesee county last week.

—A grand Firemen's Tournament is to be held at Jackson next week.

—The Literary Adelpi Society of the University of Michigan have passed a series of resolutions against the admission of girls as students in that institution.

—The Thermometer stood at 90° in the shade on the evening of Tuesday, June 28th, in this city.

—Our Mississippi valley is destined to become the garden of the world, but a dead weight on its population is the miasm which engenders bilious diseases all over it. Could an absolute antidote be found to the malaria which exhalates from its marshes, it is impossible to over estimate the consequences to our prosperity. We congratulate our fellow citizens and fellow sufferers around us, on the announcement, important if true, that Dr. J. C. Ayres the celebrated medico Chemist of the East, has discovered just such an antidote—his "Aque Cure" which is supplied at a price that can exclude no one from its benefits, and that is said to cure Fever and Ague and kindred diseases, to a moral certainty.—*Family Visitor*, Memphis, Tenn.

Foreign News.

Since the grand battle of Magenta, three other battles have been fought, each resulting in favor of the French and Sardinian arms. The first of these was at Malegnano, the second at Canonica, and the third between Bergamo and the river Oglio.

The affair at Malegnano, a town twelve miles southeast of Milan, on the road to Lodi, (called by the French Marignan), was fought between the armies of Marshal Baraguay d'Hilliers on the French side, and General Benedek on the Austrian side. Napoleon finding that the Austrian army was in full retreat toward the Adda, sent Baraguay d'Hilliers to cut them off in the direction of Lodi.—Gen. Gyulay in turn had sent Gen. Benedek in that direction to cover his retreat, and to hold the French in check while he crossed the Adda at Pizzighetone, on the road to Cremona. Gen. Benedek, with 30,000 men, entrenched himself strongly at Malegnano, and awaited the French attack. The combat lasted about nine hours, and resulted in the retreat of the Austrians, leaving

the place in the hands of the French. As at Montebello, the latter part of the fight took place in the streets of the village. The Austrians barricaded themselves in the houses, and were dislodged by the Zouaves by the bayonet, house by house.—The French bulletin claims not to have had more than 15,000 men engaged; but Gen. Forey's division, which was present and formed the right wing, was not called into action. The two divisions engaged were those of the brave Gen. Bazaine (to which the regiment of Zouaves of the Baraguay d'Hilliers corps d'armee is attached) and Gen. l'Amirault. The Austrians lost 1,500 killed and wounded, and 1,500 prisoners; the French 800 in killed and wounded. In the night a body of Croats attempted to take the town from the French, but they were surrounded and cut off.

Canonica, where another of the battles was fought, is a village on the east side of the Adda, twenty miles northeast of Milan, on the Road to Bergamo. To this point the famous General Urban, who had been sent to the extermination of Garibaldi at Como, had retreated; and here Marshal Canrobert, sent by Napoleon for the purpose, caught up with the retreating General, and offered him battle. A Vienna dispatch says the battle was a bloody one. We only know at Paris that Canrobert remained master of the field, and that the Austrians retreated in great haste toward Brescia.

From Como Garibaldi followed Gen. Urban nearly to Monza, and thus falling out of the line of country for which he had reserved himself the conquest, he abandoned the pursuit, and, striking northeast to Brivio, crossed the Adda at that point, and on the 8th entered Bergamo without resistance. The Austrians immediately sent a force from Brescia toward Bergamo, either to dislodge him from the latter place, or to impede his further progress east. Garibaldi sent out a portion of his force to meet the Austrians, and, after a sharp engagement, put them to flight.

The Austrians have placed a corps d'armee at Crespino on the Po, near the Adriatic, and another on the Adige, between Rovigo and Legnago, to prevent a flank movement from Bologna, Piacenza, or the Adriatic. The Emperor of Austria has left his headquarters at Verona to take command of the army in person, with Gen. Hess as Major-General. A new conscription has been levied in Austria, which seems to imply that the boast that the whole nation was asking to volunteer must have been a metaphor. Where the next grand battle will be fought it would be difficult to conjecture; it is hardly probable, however, that Francis Joseph will allow the French and Sardinians to advance to the neighborhood of the Mincio without offering them resistance. The three monarchs will stand in each other's presence.

A later dispatch reports the Austrian troops moving towards Italy.

Napoleon demands 100,000 additional men in order to besiege the fortresses of the Austrians which form the historical square between the Mincio and Adige.

The Austrians are said to be preparing at Mantua to attack the allied army.

The mobilization of the Prussian army, and the more hostile attitude which the German Confederation has assumed, created an uneasiness as to the result, a general war being feared.

Kossuth had passed through France, en route for Italy.

Prince Napoleon's corps had commenced moving.

The French fleet in the Adriatic was receiving powerful reinforcements, and was expected to disembark soon between Venice and Trieste.

The first detachment of the siege flotilla had left Toulon for the Adriatic.

The Sardinian authorities had issued a decree opening the ports of Tuscany for the importation of breadstuffs.

The London *Times'* Paris correspondent speaks of dissatisfaction being manifested by some Italians at the territorial action of the King of Sardinia. They protest against his taking possession of Lombardy, and ask for a confederation not a fusion.

Le Nord says the second series of operations will be simultaneously commenced by sea and land. The allied troops will all be put in action to invest the Austrian fortresses.

Prince Napoleon will proceed immediately to support the right wing of the French army.

Klapa, the Hungarian patriot, has issued a proclamation to the Hungarian soldiers in the Austrian army.

A Polish legion is forming in Italy and a Hungarian one at Genoa.

[Advertisement.]

Singer's Sewing Machines.

DETROIT, June 1st, 1859.

MR. EDITOR—Permit me to say a few words in favor of a very fine Singer, whose acquaintance I made about fifteen months ago. She is not a soprano, but pursues the even tenor of her way, and has the faculty of dotting down her music with the greatest precision, while she sings. She has an iron will, strong, but kept well balanced by the circle with which she moves, which association makes her easy and graceful in her behavior. She is a delightful and amusing companion, her form is *distingue*, and her complexion copies the Rose and the Lily.

She never gets tight, for this reason, she has a spring about her that keeps up the elasticity of her spirits so steadily that she needs no sham pain to make the thread of life run in an easy manner. She produces harmony by adding greatly to the happiness of the family where she takes the form of a Sewing Machine, to prove which I remark, that last summer I made (and I am an old lady) twenty-one shirts, and when I put my foot down and conquered her iron will, she sewed all the sleeves and gathers in and left nothing to finish by hand but the button holes.

There has been a great deal said about threading the needle of the Machine being so complicated; it can be learned in five minutes, and when you take it into consideration that your thread never breaks, unless there is a knot in it, it is not at all troublesome. When Solomon said, "I have seen an end to all perfection," he had not seen "Singer's Family Sewing Machine."

Permit me to recommend them most decidedly to all who need a machine—those for fifty dollars, and those for seventy-five, which sew cotton of 16s, and coarse also. One thing I know, if they get "Letter A," they will not "Letter B," (let her be), the letter I have, and she is a charm. I hem nicely without the hammer, as well as with it. And here I would remark that this communication is sent at my own instance, on reading a notice of these machines in your paper, of which I am a daily reader, and not by any request of its respectable agent, Mr. Porter. MRS. J. G. DUFFIELD, Detroit.

—Detroit Daily Advertiser.

The Household.

"She looketh well to the ways of her household, and catcheth not the bread of idleness."—PROVERBS.

EDITED BY MRS. L. B. ADAMS.

INVOCATION TO THE SUMMER RAIN.

BY W. C. BENNETT.

O, gentle, gentle Summer rain,
Let not the silver lily pine,
The drooping lily pine in vain
To feel that dewy touch of thine—
To drink thy freshness once again,
O, gentle, gentle Summer rain.

In heat the landscape quivering lies,
The cattle pant beneath the tree;
Through parching air and purple skies
The earth looks up in vain for thee;
For thee, for thee, it looks in vain,
O, gentle, gentle Summer rain.

Come thou, and brim the meadow streams,
And soften all the hills with mist;
O, falling dew, from burning dreams
By thee shall herb and flower be kissed:
And earth shall bless thee yet again,
O, gentle, gentle Summer rain.

LITTLE DANDELION.

BY HELEN L. BOSTWICK.

Gay little Dandelion lights up the meads,
Swings on her slender foot, tolloeth her beads:
List to the robin's note, poured from above:
Wise little Dandelion cares not for love.

Cold lie the daisy banks, clad but in green,
Where in the Mays ago, bright hues were seen,
Wild pinks are slumbering, violets delay—
True little Dandelion greeteth the May.

Brave little Dandelion! Fast falls the snow,
Bending the daffodil's naughty head low,
Under that fleecy tent, careless of cold,
Blith little Dandelion counteth her gold.

Meek little Dandelion groweth more fair,
Till dries the amber dew out from her hair,
High rides the thirty sun, fiercely and high—
Faint little Dandelion closeth her eye!

Pale little Dandelion, in her white shroud,
Heareth the angel breeze call from the cloud!
Tiny plumes fluttering, make no delay
Little winged Dandelion soareth away!

Taste in Dress.

"I wish every fashionable Magazine was burned up, and that another word about the fashions might never be published as long as there are women's heads to be turned by them," said Mr. Smith, tossing from him a paper containing an announcement of the latest styles for June. "Now for my girls tow frocks and cowhide shoes and calico sunbonnets are good enough; such things were good enough for their grandmothers, and I don't see as women are any better now than they were in old times. But here Ann and Fanny and Nellie must each have a new Sunday bonnet every year, sometimes twice a year, their feet are too tender to wear such shoes as my grandmother wore, and they have at least three or four gowns a-piece—calico, and check stuff, and I don't know what else, only I do know that they all cost money, and that it all comes of the papers printing so much about the fashions. Such things never got about amongst common work folks in my young days."

That is all very true, Mr. Smith; and we could name several other things that "cost you money, that come of being printed in the papers, and that did not get about among common folks in your young days." Look at your improved plows and harrows, your horse rakes and cultivators, your reapers and mowers and threshers. Did your grandfather have these tools on his farm? Did you read about them in the newspapers, or see them in the fields when you were young? Then why do you have them now? If old ways are best, why depart from them? If you have enumerated the extent of your daughters' extravagance, surely they have not gone beyond what you, with your improved means of farming can afford them. It should be a father's pride to see his children not only comfortably but neatly and tastefully dressed. No parent should wish to deprive his daughters of the means of exercising those womanly instincts of taste in dress, which, if governed by reason and judgment, elevate the mind, improve the manners, and impart a lady-like grace to the hardest working girls of the humblest farm house in the country. A woman's dress has a great influence on her manners, on her confidence in herself and on all associated with her. A slattern can neither respect herself nor command the respect of others. We would not advocate extravagance, nor encourage a disposition to dress for show, but we do think so long as Mr. Smith reads the papers to discover what new invention there may be either in tools to work with or the manner of working, to make money easy and keep his farm in better order than his neighbors, so long his daughters have a right to endeavor by all reasonable means to have the house and their own appearance keep pace with the condition and improvement of things without. If a farmer would advance in the world he must keep his family with him. He cannot get along without knowing how other men are doing, so that he may gain knowledge of

them, or try his skill with theirs, and thus by emulation and comparison improve and advance. Neither can Nellie and Ann and Fanny, without education in some way, judge of what is most fitting for their improvement, or know whether they are keeping up with the world in the make of their "calicos and check stuffs."

The great trouble among girls of this class is that there is too little education in the matter of taste in dress. They go to a store with no idea of what color or pattern they want, the persuasive clerk prevails on them to take whatever he is most anxious to sell; if he tells them it is "all the fashion," that is a qualification which covers all incongruities of style or color, and the purchase is made without a thought of whether it will be suitable or becoming. If they go into a milliner's or dress maker's shop, not understanding what they want, but ready to take what is urged upon them, they are as likely to be imposed upon as any way, and many very probably pay a round price for patterns as unsuitable in town as they are unsuitable to the country. We believe that taste in dress should be cultivated much more than it usually is among girls; that they should not only have an idea of the material and style of make most proper for them, but that they should know something about the philosophy of the harmony of colors. No doubt Mr. Smith has very often been shocked at what seemed to him extravagance, when in reality it was only an extraordinary display of colors in the dress patterns and bonnet trimmings of his daughters. If they had educated taste they would have chosen such styles and colors as were most becoming to their forms and complexions, and might, perhaps, have spent much more money without exciting their father's anger. As it is, when he sees Ann, who is very tall and thin, come out in her striped calico, and Nellie, who is fat and dumpy, in checks broad enough for window-sash, he knows they do not look right, something is the matter, but what he cannot tell, and so lays it all to the fashions. Educate them more, Mr. Smith, or rather give them a chance to educate themselves in these matters, and instead of offending you by their want of taste they will please and charm you by the neatness, modesty and economy of their dress. We do not intend the FARMER to be a medium for publishing all the fashionable follies milliners may invent for silly women to display, but we mean to give from time to time such accounts of changes in costume as may be of interest and may keep our readers informed of some of the ways of the fashionable world, not enough, however, we hope, to cause any serious alarm to Mr. Smith. We wish to help him.

In another column will be found an article containing some useful suggestions in regard to choosing colors suitable to different complexions. Also an extract from the *Atlantic Monthly*, showing that gentlemen in cities are subject to the same annoyances as those complained of by Mr. Smith, and from the same cause, want of true taste in the art of dress.

Street Dresses.

Oliver Wendell Holmes thus discourses in the *Atlantic Monthly* on the subject of ladies' dresses:

"Our landlady's daughter is a young lady of some pretensions to gentility. She wears her bonnet well back on her head, which is known by all to be a mark of high breeding. She wears her trains very long, as the great ladies do in Europe. To be sure, their dresses are so made up to sweep the tapestried floors of chateaux and palaces; as those odious aristocrats of the other side do not go dragging through the mud in silks and satins, but, forsooth, must ride in coaches when they are in full dress. It is true, that, considering various habits of the American people, also the little accidents which the best-kept sidewalks are liable to, a lady who has swept a mile of them is not exactly in such a condition that one would care to be her neighbor. But then there is no need of being so hard on these slight weaknesses of the poor, dear women as our little deformed gentleman was the other day.

"—There are no such women as the Boston Women, Sir,—he said. Forty-two degrees, north latitude, Rome, Sir, Boston, Sir! They had grand women in old Rome, Sir,—and the women bore such men-children as never the world saw before. And so it was here, Sir. I tell you, the revolution the Boston boys started had to run in woman's milk before it ran in man's blood, Sir!

"But confound the make-believe women we have turned loose in our streets!—where do they come from? Not out of Boston parlors, I trust. Why, there isn't a beast or a bird that would drag its tail through the dirt in the way these creatures do their dresses. Because a queen or a duchess

wears long robes on great occasions, a maid-of-all-work or a factory-girl thinks she must make herself a nuisance by trailing through the street, picking up and carrying about with her—pah! that's what I call getting vulgarity into your bones and marrow. Making believe be what you are not is the essence of vulgarity. Show over dirt is the one attribute of vulgar people. If any man can walk behind one of these women and see what she takes up as she goes, and not feel squeamish, he has got a tough stomach. I wouldn't let one of 'em into my room without serving 'em as David served Saul at the cave in the wilderness,—cut off his skirts, Sir! cut off his skirts!

"I suggested, that I had seen some pretty stylish ladies who offended in the way he condemned.

"Stylish women, I don't doubt,—said the little gentleman. Don't tell me that a true lady ever sacrifices the duty of keeping all about her sweet and clean to the wish of making a vulgar show. I won't believe it of a lady. There are some things that no fashion has any right to touch, and cleanliness is one of those things. If a woman wishes to show that her husband or her father has got money, which she wants and means to spend, but doesn't know how, let her buy a yard or two of silk and pin it to her dress when she goes out to walk, but let her unpick it before she goes into the house;—there may be poor women that will think it worth disinfecting. It is an insult to a respectable laundress to carry such things into a house for her to deal with. I don't like the Bloomers any too well—in fact, I never saw but one, and she—or he, or it—had a mob of boys after her, or whatever you call the creature, as if she had been a—

"The little gentleman stopped short."

RECOLLECTIONS OF IRELAND.

PREPARED FOR THE YOUTHFUL READERS OF THE MICHIGAN FARMER: BY SLOW JAMIE.

NUMBER FOUR.

Would you believe it? I went to school nearly a year and a half before I could read. During that time, however, I learned a great deal, although not at school. No more, I suppose, than many of my young readers have learned in less time. Still I repeat it I learned a great deal. I corrected wrong impressions; I learned new words; and I gained fresh ideas. Wrong views of things manifest themselves, especially in dreams.—I dreamed one time that we had a kitten cooked for dinner, and that it ate very well. Another time I thought I heard an old horse whistling the Boyne-water with great hilarity, as he trudged along at the plow. And in a third dream, I thought a goat belonging to one of our neighbors, called out to me, "I'll hook you." When I scampered off home, I looked back and saw her laughing at me. I considered these things at the time as neither strange nor incongruous. Instead, I regarded them at the time as real transactions, not understanding the nature of dreams. But by degrees experience taught me that we did not eat cats, unless other meat was very scarce, that horses never whistled, that goats neither laughed nor joked.

To understand the meaning of words is no small part of a child's education. I remember well the first time I noticed the word *appetite*. I inquired what it meant. "When ye want to eat," said my mother, "that is appetite." When my brother William came into the house I asked him if he knew what *appetite* meant. He said "no," and I told him.—"But do you know what *circumference* means," said he. "No," said I. "Well," said he, "It means all around a thing." He had got one word and I had got another, and by exchanging them each had two. The first bird's nest I ever saw was found by some naughty boy who carried away the young. When I asked my brother Hugh to take me to it again, he told me it was *robbed*. "Robbed. What is that?" "Oh, somebody has taken away the young birds." I insisted on seeing the empty nest, and cried to see that the little birds were gone. But I never forgot the meaning of the word, *rob*.

The school teacher used to say, when scolding the troublesome scholars, "For one fraction I would flog you." And if my memory serves me right, he sometimes said a half fraction. I asked William how much a fraction was. He said it was half a farthing. Of course he was only guessing at it. Still, it was a natural conjecture, for he knew it was intended for something very trifling, and as one penny contained two halfpennies, and one halfpenny contained two farthings, it was very natural to suppose that two fractions made a farthing.

But the gathering of ideas was a more business than learning words to communicate them. It is well enough to have a handsome purse, but better to have the money to put

into it. So with thoughts. As Ireland has always been noted for the manufacture of linen, this was one of the first things that drew my attention. I have already noticed the bleach-greens along the river Bann. My father generally kept three looms going, and I used to go into the weave shop every day, to listen to the weavers' songs, and watch their work. Thread after thread, thread after thread, by a process slow but sure, would soon work up an inch or two. Then they would take their polishing stone, rub the cloth off smooth, and at it again. In ordinary linen, a good weaver would turn off four yards in a day, but in the finest fabric it took a weaver very busy to do a yard in a day.

There was also a Lilliputian weaver, to whom Tom Thumb would be a giant, who set up his establishment in my father's shop. He never asked permission, yet I believe he was entirely welcome. I watched him with astonishment and delight. His quick movements, the fineness of his web, and the ingenious little bunk where he slept close beside his work, all excited my curiosity. I asked my father how he could peel his praties when his fingers were so wee. To my astonishment, I learned that the little gentleman was too proud to eat potatoes at all. He caught flies, and feasted on them. These were his meat, his potatoes and his whisky.

In the kitchen, as well as the weave-shop, I found amusement and instruction. My parents, although poor, kept two pianos, and my mother was an excellent performer. From morning till noon, from noon till night, the music was unceasing. She had a great variety of songs, yet she played but a single tune on the instrument. When the sailor gives a song, he stops his yarn, but whether she sung or was silent, she always spun her yarn.

In the barn, I watched the hecklers, as they dressed the flax on their loud sounding heckles. In the field, I watched the laborers as they pulled the flax, watered it, and spread it out to dry. And last of all, I got once to the scutch-mill, and saw the scutchers enveloped in dust, stick the handfuls of stalks into the mill, and bring it out in a few seconds, soft and pliant flax. This was, to me, the strangest part of the whole process.

The use of a gun was another rich source of thought. Like another of my wise countrymen, I was early impressed with the idea that a gun was dangerous loaded or unloaded; in which opinion I was not far wrong. I was three years old when I saw my father shoot some crows in a barley field. My idea was that the blaze produced a violent vibration in the barley, which extended as far as the crows, and killed them. But some time after he shot a cross dog we had, which had bitten a neighbor woman severely. He pointed the gun at the dog, and fired. The blaze did not reach the dog, yet he fell and bled. I was now at a complete loss, but said nothing to any one, and remained perplexed.

A long time after that, a large boy named John Stranaghan, made a little gun of elder. He loaded it, stuck a burning stick into the touchhole, and fired it off. This seemed perfectly simple. I watched them loading a large gun, asked questions and found that the blaze pushed out the ball, and felt that I had made a great discovery; and so I had. I have written this paper that when you see any machinery you may observe it well, and ask questions, when you think those questions will not be troublesome. Always be ready to answer any questions put by those who are younger too.

Household Varieties.

AN ODE TO LAMB.

Hind quarters of the type of innocence,
Whether with peas and mint I must dispense,
Or go the twin—blaspheming the expense—
And thus enjoy thee in the fullest sense—
That is the question.

Rear section of young mutton—tender food—
Just in the dawn of grass fed juicy-hood—
Dainties like these should not be served up nude,
But graced with all the trimmings understood,
To help digestion.

Then boil the peas—the fragrant mint prepare—
Be thou, prime joint! not overdone—nor rare—
Concoct the gravy with exceeding care—
When all is ready, serve—I shall be there—
I always am!

Incipient sheep's meat—when on thee I dine,
Hot be the plate, and icy cold the wine—
Three alleles midway of the leg be mine—
Then put the roast away—for very fine
Is cold roast lamb!

Mr. Backus, a mute, editor of the *Canajoharie Advertiser*, opens his editorial columns on Thursday with this touching obituary: "We cannot this week fill our usual column—every time hitherto that we have sat in the old place, to the now regular recurring duty, we have had dear little fingers rambling along our knees, or making stray snatches at the paper. A little face, all lit with happy eyes, bo-peeping into ours. A little head, nodding as it shook its curls, a mock 'by by, papa,' and turning back again to the sweet child's teasing. But now, alas! the little fingers are no longer here. The little eyes are dim with a dizziness that shall never know the old lustre again, and the little curls are yonder, beneath the sod that gleams so greenly between the trees and the glimmering white tombstones."

Mary's Married Life.

CHAPTER V.

It was a slow, toilsome, wearying journey. The first thirty miles was through a wet, heavily-timbered swamp, where for hours together the oxen waded through mud and water, dragging the creaking wagons after them. At noon, the travelers sought a dry, grassy mound on the bank of a little creek that crossed the road; here their provision chest was opened, and they partook of their first dinner in the woods under the shadow of an old oak, whose gnarled roots, stretching toward the stream, raised the soft turf into ridges which served for seats. At night they stopped where sunset overtook them, scarcely thirty miles from where they started in the morning. After a quiet night's rest at the village hotel on the banks of the Huron, they went on refreshed and hopeful, rejoicing that they were safely past so many perils, and so much nearer their journey's end. The second day they went over a rougher road, less traveled, and frequently obstructed by stumps and roots of trees, and the deep gullies which the rains had made among the stone boulders projecting from the many ridges of sand hills that crossed their way. When the mother and children were weary with the jolting of the wagon, they would walk beside it, and amuse themselves with gathering flowers and watching the birds and squirrels in the forest around them. Settlements were less and less frequent as they went on; the third and fourth days passed with little change, except, perhaps, that the solitude of the wilderness seemed more oppressive. Towards the evening of the fifth, poor Mary felt quite overworn with fatigue and anxiety for her children, who were evidently drooping under this protracted journey. They had been assured that they would reach O— before dark. It was near night, but as yet there were no signs of a human habitation, and had not been for miles past. The road, however had become more level, and the weary travelers, yielding to their exhaustion and the monotonous motion of the slowly moving wagons, had fallen asleep. The mother had placed a folded shawl on the trunk next which she sat; her head rested upon that for a pillow; one arm was thrown protectively over her eldest daughter, Rebecca, a fragile looking child of seven years, who lay on her lap, and the other was drawn closely around the little Emma, now in her fifth year, whose head was pressed against her bosom.

The loud "whoa" of the driver who had been walking beside his team, the sudden stopping of the wagon, and a confused sound of voices around them, aroused the sleepers. Mary looked up. They were evidently in the village, for here and there were dim lights gleaming through the darkness from low dwellings, and close at her right hand was a long, double log house with a wide porch running along the whole front. Under this porch-roof sat and stood about a dozen men, among whom, by the light from the open door, Mrs. Freeland discovered her husband. The children also saw him; and calling out "Papa!" would have sprung into his arms with kisses and caresses, but he took them quietly though firmly from the wagon, and set them down on the ground without a kiss or smile of welcome, and proceeded to help their mother out, only remarking that a wagon was a very proper place to sleep in, especially on the public road, and it was well that she had such confidence in the teamsters.

Poor Mary said nothing. She only kissed her husband's hand as it passed near her lips when he lifted her to the ground, then with her two little ones followed him into the house. There was no warmth, no welcome, no hope in such a meeting, and in spite of the wife's efforts to be cheerful, there was a too evident depression of spirits, a too frequent starting of unbidden tears. The wearied children clung to her, she put off their cloaks, kissed their little cheeks while her own were wet with tears which she would not let her husband see, told them that this was to be their home till a house could be built on their new farm, and promised that if the morning were fair they would walk out and see the farm and find if any flowers were growing there.

"You will find it altogether too new for any practical purposes at present," said her husband. "I have changed my mind about settling here since I wrote to you, but we will talk about that to-morrow. I'll go and see that the landlady has supper for you, and then you had better go to bed. I shall be out till very late, as I have business which will keep me away, but you'll see me again in the morning."

With these words, spoken in the most indifferent tone, Doctor Freeland left the room. A sharp pain, as of a death pang, went through the wife's heart. How powerless she

felt, how desolate and wretched seemed her lot. With the misery of the past few years came up in contrast the peaceful quiet of her girlhood's life; the blinding tears that filled her eyes and ran over her pale cheeks were a relief to the weight that was pressing upon her heart, and she let them flow for a few moments quietly; but the little ones were clinging to her in strange alarm; it would not do to give way to selfish grief now, she had borne up so far, she would struggle on—hope a little longer, it seemed very dark, but perhaps the dawn was near. She wiped away the tears, it was hard to keep them back, but fortunately the mistress of the inn opened the door at that moment to call her guests to supper. She was a kindly-looking woman, though somewhat rough, appearing as if much used to hard labor; and exposure to wind and sunshine had tanned and roughened her naturally fair complexion till it resembled more an Indian's than a white woman's. But her voice was pleasant, the supper she had prepared was clean and wholesome, and her weary guests were in no mood for finding fault with appearances. The meal passed quietly and sadly enough, Mrs. Freeland answering the few questions of the hostess in regard to the road, the distance they had come, and the accommodations by the way, adding as she rose from the table,

"I hope my husband has made arrangements with you for us to stay here a day or two before going to our own home. Both the children and I need rest. My little girls were hardly strong enough for such a journey, and I shall feel better able to unpack and arrange—"

"O, ma'am," interrupted the landlady, "you'll have plenty of time to rest, and won't be troubled with unpacking very soon, I guess. I heard the Doctor say to Martin, that's my husband, that he should hire you boarded here for a month, and maybe longer. He's going away with Beaman soon, and don't lay out to be back before the last of July. Besides, there ain't the first stick cut towards building a house on your place, and such a wild, fever'n-ager sort of a place as it is when you get to it, I don't think either you or these blessed little dears would stand it long if they should go there to live," she said, tenderly stroking the children's heads as she lifted them from their chairs.

Mary Freeland felt a shudder run through her frame at the mention of the name of Beaman. She had heard it before, in her native town, and the man who bore it was an associate of gamblers and drunkards. It was possible this might not be the same, but she was too much disheartened to make any inquiries, and soon retired with her little ones, to find what repose she could in a restless troubled sleep.

The next morning, Mrs. Martin informed Mary that the Doctor and Mr. Beaman had been there before daylight; that Beaman had returned unexpectedly, and that both were obliged to leave immediately on some urgent business, which they said would probably detain them a month. The Doctor left word for his family to remain where they were till his return, giving Mr. Martin a mortgage on his household goods to secure him for their board.

(To be continued.)

Choosing Colors.

In choosing colors for articles of dress, regard must be had to the color of the hair and the complexion of the wearer. A work has recently been published, entitled "The Laws of Contrast," in which the following useful hints are given:

"Rose-red cannot be put in contrast with even the rosiest complexions without causing them to lose some of their freshness. Rose-red, maroon, and light crimson have the serious disadvantage of rendering the complexion more or less green. This is shown in the following experiments. Place two sheets of paper of either of the above colors beside two sheets of flesh colored paper, when it will be seen how much they are mutually injured, the lighter becoming greenish, and the darker rather of a violet hue. By substituting light green for the red, we shall find them mutually heightened and improved. The height of tone of the green influences the result; a very deep green, acting by contrast of tone, so enfeebles the complexion, that the slight contrast of its colors will be inappreciable; a deep red, by contrast of analogy, blanches the complexion. It is necessary, then, to separate the rose from the skin, in some manner; and the simplest manner of doing this, is to edge the draperies with a border of tulle, which produces the effect of gray by the mixture of white threads, which reflect light, and the interstices, which absorb it; there is also a mixture of light and shade, which recalls the effect of gray, like the effect of a casement window viewed at a

great distance. Dark red is less objectionable for certain complexions than rose red, because, being higher than the latter, it tends to give whiteness to them in consequence of contrast of tone.

Delicate green, is, on the contrary, favorable to all fair complexions which are deficient in rose, and which may have more imparted to them without disadvantage. But it is not as favorable to complexions that are more red than rosy; nor to those that have a tint of orange mixed with brown, because the red they add to this tint will be of a brick-red hue. In the latter case a dark green will be less objectionable than a delicate green.

Yellow imparts violet to a fair skin, and in this view it is less favorable than the delicate green. To those skins which are more yellow than orange it imparts white; but this combination is very dull and heavy for a fair complexion. When the skin is tinted more with orange than with yellow, we can make it rosy by neutralizing the yellow. It produces this effect upon the black-haired type, and it is thus that it suits brunettes.

Violet, the complementary of yellow, produces contrary effects; thus it imparts some greenish-yellow to fair complexions. It augments the yellow tint of yellow and orange skins. The little blue there may be in a complexion it makes green-violet. This, then, is one of the least favorable colors to the skin, at least when it is not sufficiently deep to whiten the skin by contrasts of tone.

Blue imparts orange, which combines favorably with white, and the light flesh tints of fair complexions, which have already a more or less determined tint of this color.—Blue is thus suitable to most blondes, and in this case justifies its reputation. It will not suit brunettes, since they have already too much of orange.

Orange is too brilliant to be elegant: it makes fair complexions blue, whitens those which have an orange tint, and gives a green hue to those of a yellow tint.

Lustreless white, such as cambric muslin, assort well with a fresh complexion, of which it relieves the rose color; but is unsuitable to complexions which have a disagreeable tint, because white always exalts all colors by raising their tone; consequently it is unsuitable to those skins which, without having this disagreeable tint, very nearly approach it.

Very light white draperies, such as muslin or lace, appear more gray than white. We must thus regard every white drapery which allows the light to pass through its interstices, and which is only apparent to the eyes by the surface opposed to that which receives incident light.

Black draperies, by lowering the tone of the colors with which they are in juxtaposition, whiten the skin; but if the vermilion or rosy parts are somewhat distant from the drapery, it will follow that, although lowered in tone, they appear relatively to the white parts of the skin contiguous to the same drapery redder than if not contiguous to the black."

Household Recipes.

Current Jelly.

Pick fine red, but long ripe, currants from the stems; bruise them, and strain the juice from a quart at a time through thin muslin; wring it gently, to get all the liquid; put a pound of white sugar to each pound of juice; stir it until it is all dissolved; set it over a gentle fire; let it become hot, and boil for fifteen minutes; then try it by taking a spoonful into a saucer; when cold, if it is not quite firm enough, boil it for a few minutes longer; strain it into small white jars or glass tumblers; when cold, cover with tissue-paper as directed. Glass should be tempered by keeping it in warm water for a short time before pouring any hot liquid into it; otherwise it will crack.

To make currant jelly without boiling, press the juice from the currants and strain it; to every pint put a pound of fine white sugar; mix them together until the sugar is dissolved; then put it in jars, seal them, and expose them to a hot sun for two or three days.—*Germantown Telegraph.*

Scouring Knives.

A small, clean potato, with the end cut off, is a very convenient medium of applying brick-dust to knives, keeping it about the right moisture, while the juice of the potato assists in removing stains from the surface. We can get a better polish by this method than by any other we have tried and with less labor.—*Artisan.*

Charade.

When Flora with a lavish hand
Has decked the garden, wood and fields;
On breezes soft and zephyrs bland,
My first a fragrant odor yields.

All druggists and perfumers keep me
And of sweet odors, most ladies like me best;
But my name was never known to be
Until I had been expressed.

My second exists through all the land
Wherever human foot hath trod;
On ocean's tide, in forests grand,
In every city town and ward.

My whole a beauties thing indeed,
Adorns the rich man's hall;
But those poor folks who stand in need,
Do not have this beautiful thing at all.

Plymouth, June 16, 1899.

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Coffee Mills.	Ice Cream Freezers.
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Baskets, (split) from 1½ peck to 2 bushels.	Mop-Sticks and Irons.
Beet Cutters, (Patent, iron-riveted,) from ½ to 2 bushels.	Mouse and Rat Traps.
Butter Sticks.	Nails, (cut and wrought.)
Cultivators, (Large.)	Ox-Yokes and Bows.
Corn Cultivators, with wheel.	Ox Bits, (brass, for horns.)
Carrot Weeder, (Horse.)	Ox Ties, (chain.)
Corn Planters and Seed Drill (Emery & Co. patent,) for Horse.	Plow Points, &c.
Corn Planters, (hand.)	Plow, "Starbuck's "Trojan," 8 sizes, No. 4 and 5.
Corn Shellers.	Starbuck's "Peekskill," 6 sizes.
Cradles and Scythes.	Nourse, Mason & Co.'s "Eagle," 4 sizes.
Clowns, (thermometer or glass.)	Nourse, Mason & Co.'s "Stubble Plow," 7 sizes.
Cheese Presses.	Steel Plows.
Cheese Tubs, (tin.)	Subsoil Plows.
Cider Mills.	Durable Mold-board Corn Plows.
Cooking Scales.	Side Hill Plows.
Cow Belts.	Pump Reel, Curbs, galvanized iron tube and chain.
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Corn Poppers.	Pots and Kettles, (all sizes.)
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Chains, No. 2, 3, 4, and 5 inch.	Rakes, (hay, garden and cranberry.)
Dog, (or Sheep,) powers for churning.	Straw Cutting Boxes, 12 sizes from 1 to 12 knives, (hand and horse power.)
Dish Cloth Holders.	Seed Drills, (horse or hand.)
Elevator Buckets.	Scythes and Sickles.
Fork, (hay or manure,) 2 to 3 inches.	Saws, (hand, or circular.)
Fanning Mills, (Grant's.)	Saw Sets and Files.
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FRESH SHAKER SEEDS, of LAST YEARS growth and warranted. Also, Spring Wheat, Sweet Potatoes of several kinds, King Philip, Flour, Dutton, Eight Bowed and Sweet Corn, Timothy, Clover, Barley, Peas, &c., at

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346 AND 348 BROADWAY, N. Y.
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VOLUME V.—("Chau-Cou.")

NEW AMERICAN
CYCLOPEDIA:
A Popular Dictionary of General Knowledge.

EDITED BY
GEORGE RIPLEY AND CHAS. A. DANA,
Assisted by a numerous and Select Corps of Writers.

The object of
THE NEW AMERICAN CYCLOPEDIA
is to exhibit, in a new condensed form, the present state of human knowledge on every subject of rational inquiry.

SCIENCE, ART, LITERATURE,
PHILOSOPHY, RELIGION, POLITICS,
AGRICULTURE, MEDICINE, BIOGRAPHY,
COMMERCE, MATHEMATICS, GEOGRAPHY,
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In the preparation of the present volume, nearly a hundred collaborators have assisted, including persons in almost every part of the United States, in Great Britain, and on the Continent of Europe whose names have attained an honorable distinction, each in some special branch of learning. No restriction has been imposed on them, except that of abstention from the expression of private dogmatic judgments, and from the introduction of sectarian comments, at war with the historical character of the work. In this fact, it is hoped will be found a guaranty of the universality and impartiality of the NEW AMERICAN CYCLOPEDIA, which, the Publishers do not hesitate to say will be superior in extent, variety and exactness of information to any similar publication in the English language.

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Five volumes will be published as fast as they can be got ready.

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1859. SUMMER ARRANGEMENT. 1859.

MICHIGAN SOUTHERN

AND

DETROIT, MONROE AND TOLEDO

RAIL ROAD.

On and after Monday, April 18th, 1859, Passenger

Trains will run as follows:

Leaves Detroit for Adrian and Chicago at 6:45 A.M. and 5:00 P.M.

Arriving at Adrian at 9:57 A.M. and 10:00 P.M.

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For Monroe, Toledo, Cleveland, Cincinnati, Buffalo and New York: Leaves Detroit at 6:45 A.M. and 1:00 P.M.

Arrives at Monroe at 8:38 A.M. and 8:30 P.M.

Toledo at 9:30 A.M. and 4:30 P.M.

Leaves Toledo at 6:45 A.M. and 5:30 P.M.

Arrives at Cleveland at 8:10 P.M. and 9:30 P.M.

From Chicago for Detroit:

Leaves Chicago at 6:00 A.M., 8:00 A.M. and 8:00 P.M.

From Cleveland for Detroit:

Leaves Cleveland at 4:00 A.M., 11:00 A.M., and 6:30 P.M.

" Toledo at 4:10 P.M., 10:35 P.M.

Trains arrive at Detroit from Chicago, Adrian, Cleveland and Toledo at 1:35 A.M., 12:15 P.M. and 7:15 P.M.

CONNECTIONS:

The 6:45 A.M. Train from Detroit makes direct connection at Adrian, with Express Train for Chicago and Jackson.

Arriving in Chicago at 7:00 P.M., in time to connect with the Trains of all Roads running west of Chicago; and at Toledo with Express Train for Cleveland—arriving in Cleveland at 8:10 P.M., making direct connection with Express Train for Buffalo and New York; arriving in New York at 1:30 P.M., and with the Express Train for Pittsburgh.

The 1:00 P.M. Train connects at Toledo with Express Train for Cleveland, Buffalo, and New York—arriving in Cleveland at 9:20 P.M. and New York at 9:30 P.M.—next evening, and with Express Train for Pittsburgh.

The 5:00 P.M. Train, connects at Adrian with Express Train for Chicago—arriving in Chicago at 7:00 A.M.

The 6:30 P.M. Train from Cleveland, and 10:35 P.M. Train from Toledo, arrives in Detroit at 1:35 A.M.—making direct connection at Detroit with Express Train on Great Western Railway for Suspension Bridge and Niagara Falls.

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R. F. JOHNSTONE, EDITOR.

Publication Office, 130 Jefferson Avenue,
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WOOL DEALER,
90 Woodward Avenue,
DETROIT, MICHIGAN.

THE MARKETS.

Flour and Meal.
The tendency of the breadstuffs market is still down in spite of the combined efforts of the frost, milds and rust to raise a panic. News will get abroad of luxuriant crops coming forward and nodding a promise of a plentiful harvest, and all the croakers to the contrary cannot contract the effects of such prospects on the market.

The quotations on flour and meal here are about the same as last week, with little or nothing doing except for the home trade. Receipts by railroad are reported light during the week. No sales of consequence have taken place. Extras are quoted at \$7.25 per bbl, and spring at \$6.

Wheat—Is without change, except that spring has declined 2c, held at \$1.18. Sales light, and only at retail.

In New York there has been hardly any disposition to purchase State and western flour the past three days, and the market for all descriptions has been exceedingly dull. Holders generally have been very free sellers, and have been forced to submit to a further reduction of 20c 5c per bbl, and even at this concession buyers have failed to come forward, and we very much doubt if large sales could now be effected, were holders disposed to take off 25c per bbl more. From all we can gather "on Chicago," nobody wants except it is to supply a most urgent want; and even then, says a "seller," you have to talk the buyer into it—force it on him, and almost at his own price. From these remarks, our readers can imagine how inactive the market really is; and we doubt if there will be much done till after the 4th prox, unless it be to some new excitement arises.—*Economist, June 20th.*

At Chicago, on Wednesday, says the *Press*, the wheat market opened dull and heavy, and sales were made at a decline of 2c on the prices of the day before. In the afternoon, however, more favorable advices from Buffalo caused a reaction, and the market advanced 5/16c from the lowest point reached on "Chicago." Flour was very dull. Corn opened dull and drooping; but an improvement of 2c in New York caused an advance of 1c before the close.

At Buffalo, June 30, flour was in better request and market steady. Sales 1,000 bbls at \$5.25 to \$5.35 for State, from Chicago spring wheat; \$5.57 to \$5.65 for good to choice extra Ws.; \$6.15 to \$6.25 for do. Mich., Ind. and Ohio; \$7.12 to \$7.25 for double extras.

Wheat—In fair milling demand and market steady.—Sales 5,500 bu standard Chl spring at \$1.72 1/2; 5,000 bu ordinary Milwaukee club, and 1,800 bu extra do at \$1.21; 8,800 bu mixed Ill. at \$1.12 1/2; 1,700 bu red Ind at \$1.23. Detroit city provision market quotations are as follows:

Flour—Extra winter \$7.25 to \$7.37 1/2.
Wheat—White \$1.50 to \$1.55; red winter \$1.40 to \$1.45, declining; spring \$1.18.
Corn—Prime western in bags 80c, from car 77c to 78c.
Oats—Selling at 45c to 46c, extra choice in small lots at 50c.
Potatoes—Declining. Common quoted at 75c to 80c; best mechanicks 90c to \$1.

Eggs—In good demand at 14c to 15c.
Butter—Demand moderate at 12c to 13c.

Live Stock, &c.
Beef is still declining. Forty head prime cattle have been purchased at Marine market this week at \$3 per cwt. Mutton of best quality at \$3 per head, lambs \$1.15. The warm weather keeps pork and veal out of market.

At Albany, N. Y., 4,000 beef cattle were offered in market on Tuesday last, 1,000 of which had been held over from the week before. The buyers and sellers were at variance, many of the latter refusing to accept the reduced terms of the overstocked market. Among the droves named, we notice from Michigan Terry and Pendergast with 17 head, and J. Curtis, 35 head.

The prices were as follows:

	This Week.	Last Week.
Superior	4 1/2 to 5 1/2	4 1/2 to 5
First quality	4 1/2 to 5	4 1/2 to 5
Second quality	4 to 4 1/2	4 to 4 1/2
Third quality	3 1/2 to 4	3 1/2 to 4
Fourth quality	3 to 3 1/2	3 to 3 1/2
Interior	2 1/2 to 3	2 1/2 to 3

The market closing dull.

In New York, the number of beef cattle in market on Tuesday and Wednesday was 3,834—602 more than last week, and far more than needed by the demand. Drovers have lost largely by going in upon such a crowded market with cattle contracted at high rates. The quality of stock is reported as below the average.

Prices range as follows:

	This Week.	Last Week.
First quality	10 to 11 1/2	10 to 11 1/2
Medium	9 to 10	9 to 10
Ordinary	8 to 9	8 to 9
Some extra good may be quoted at	11 to 12 1/2	11 to 12 1/2
The general average of the market	9 1/2 to 10	9 1/2 to 10
The most of the sales range from	8 1/2 to 10	8 1/2 to 10

Wool.
A good deal of wool has been brought in during the past week, but buyers keep quiet, and we cannot learn at time of going to press what rates they are paying. Judging from the country press, there has been a slight decline from the highest rates quoted last week, and in consequence many farmers who can afford to do so are keeping back their clips. The Grand Rapids *Enquirer* says that 1,000 lbs of very choice, brought 44 1/2c in that city.

At Lansing, the average price is reported as 83c. The Chicago rates reported to the 30th ult. are from 84 to 85c.

The N. Y. *Tribune* of Thursday remarks in regard to wool and its prospects: "Our market continued quiet, yet prices are well sustained, to the great chagrin of a portion of the trade, who are straining every nerve to depress the market, and quoting sales fully below than any good selection can be obtained in any wool-growing districts; but this mode of transacting business will in due course of time have a telling effect on those who falsify facts. The clipping season is now well over, and the result is nearly the third of the crop in the Western States has been bought chiefly on manufacturing account, at an advance of fully 12c on last year's prices. Dealers and speculators generally have purchased lightly, and this is well for the manufacturers of goods—it would indeed be a blessing to them often if there were no 'middle men' to come between them and wool-growers; but the great want of credit on their part, heretofore, has been so seriously felt that, without the assistance of the 'middle men' it would be difficult to keep their looms in active motion. But those who now run the majority of our mills were not the constructors of them, and they probably bought very many of them under the auctioneer's hammer, at 50 cents on the dollar, or less; consequently they possess greater means than their predecessors, and therefore they or their agents now seek out the wool-growers, and are the principal purchasers of the clip, at the highest prices, too: indeed, the majority of them are willing to pay the farmers at all times a proper remuneration for their wool. Let not our interior friends, therefore, be led astray by most of the reports emanating from here. In fact, there is nothing of moment transpiring, and the few small sales making are mostly of inferior description, which are no real guide to the market. We quote:

Am. Saxony fleece	\$6.00 to \$6.25
Am. Full blood Merino	\$5.00 to \$5.25
Am. 3/4 and 1/2 Merino	\$4.00 to \$4.25
Am. native and 1/2 Merino	\$3.00 to \$3.25
Extra, Full-blood	\$4.00 to \$4.25
Superior, Pulled	\$3.00 to \$3.25
No. 1, Pulled	\$2.00 to \$2.25

WALLACE'S WOOLEN FACTORY.
BATTLE CREEK, MICH.

THE SUBSCRIBER continues to manufacture wool into CLOTH, CASSIMERE, TWEEDS and FLANNEL for farmers, either on shares or by the yard. Terms as reasonable as any other good establishment in the State. Goods warranted perfect, hard, twisted, and durable, free from cotton, old rags or flocks.

Farmers if you want a good article of cloth, send on your wool; it may be sent by railroad, with directions, and shall be promptly returned, and warranted to give satisfaction or all damages paid.

A large stock and good variety of cloths, stockings, yarn, &c., always on hand.

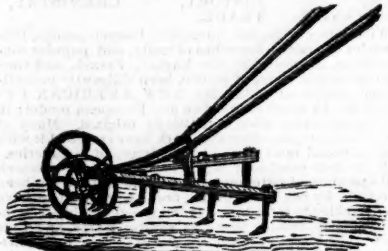
He will pay the highest market price in cash, or cloth at wholesale prices, for any quantity of wool delivered at his factory.

Wool carding and cloth dressing done in the best manner on short notice.

WILLIAM WALLACE,
Battle Creek, May, 1859. 28-6m

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THE HAND SCARIFIER.



PRICE \$3.50.

WE offer for sale the Hand Scarifier, the most desirable and useful implement for gardens, of any that has been invented, and the most perfect labor saver.

Read the testimony of those who have tried it last season:—

ROCHESTER, OAKLAND, CO., MICH., FEBY., 1859.
MESSRS. BLOSS & ADAMS:

In answer to your inquiry, "How we like the Hand Scarifier," we reply that we are highly pleased with it. It is an invaluable machine for cultivating all root crops sown in drills. It works easy, a boy of 12 years old can use it and do more work than five men can with hoes in the same time. It pulverizes the surface of the ground and kills all the weeds. I had one the last season and speak from experience. A person having a quarter of an acre of garden to cultivate should not be without one and no farmer or gardener after using one a single hour would be without one for four times its cost.

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Yours respectfully,
JULIEN ADAMS.
These implements are for sale by the subscribers at their retail store,
J. B. BLOSS & CO.,
No. 22 Monroe Avenue, Detroit.

BLACK HAWK, Jun., 1st.

THIS favorite son of Old Vermont Black Hawk will stand for this season at the stable of the subscriber in the town of Plymouth, half a mile west of the village.

Black Hawk Jun., 1st.

Was sired by Old Vermont or Hill's famous Black Hawk; grand sire, Sherman Morgan; g. g. sire, Justin Morgan. His dam was by Young Hamiltonian, by Bishop's Hamiltonian, by Imported Messenger. The dam of Young Hamiltonian was by Leonidas, g. dam, by Belfounder.

This horse is a jet black in color, is fifteen hands high, and closely resembles his sire in style and action. He possesses an excellent temper, is pleasant to drive, and goes in good style. He received the first premium at the N. Y. State fair in 1857, beating Billy McCracken of Oak-kosh, Wis., and distanced all competitors in a trial of speed at the N. Y. State fair at Syracuse in 1858. His stock are of good size, excellent in speed, style, and docility. T. W. MERRITT, Plymouth.

Address the subscriber for terms and further information.
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The subscribers keep constantly on hand a large stock of **ELEGANT FURNITURE,**
Both Modern and Antique Styles; in Rosewood, Mahogany and Domestic Wood.

Those wishing rich and fashionable furniture, will always find a great variety to select from—equal in every respect to anything in the Eastern market. Being in constant receipt of Pattern Pieces from the

FASHIONABLE MAKERS IN NEW YORK, they are enabled to guarantee the most **Perfect Satisfaction** to their customers.

They also keep constantly on hand a large and complete assortment of Plain Furniture of Mahogany, Cherry and Walnut. In short, every article in the line of Household Furniture will be found here. Stock, including Chairs of every style and price, from four shillings to sixty dollars each. The subscribers now have on hand, and make to order, best

HAIR MATTRESSES.

Their customers can rely upon getting a genuine article. COEN-HUSK MATTRESSES & STRAW PALLIASES constantly on hand. For the trade we keep constantly a large stock of Mahogany and Rosewood Veneer.

STEVENS & ZUG.

Horse Powers, Threshers and

Cleaners!

PITTS 8 AND 10 HORSE, EMERY'S 1 AND 2 Horse (treed) Powers, Pense's Excelsior Powers, and Comb Mills, Corn and Feed Mills, Flour Mills, Cross-cut and Circular Saw Mills, Leonard Smith's Smut Machines.
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THE WILLIS' STUMP PULLER

Is the most powerful and most economical machine in use for pulling stumps, and will clear a field in less time than any other invention of a like kind.

Twenty-three stumps have been pulled with this machine in an hour and fifteen minutes. The undersigned will sell machines and rights to use and manufacture in any part of Michigan except the counties of Hillsdale, Branch, Wayne, Washtenaw, Jackson, Calhoun, Kalamazoo, Van Buren, Macomb, Genesee, Shiawassee, Saginaw, Tuscola and St. Clair, which are already sold.

All necessary information as to prices, and mode of using, will be given on application to
DAVID BLACKMAR, Ypsilanti,
or to R. F. JOHNSTONE, Editor Michigan Farmer.

The machines are manufactured at the Detroit Locomotive Works from the best Lake Superior Iron. [8]

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CAPITAL \$900,000.

WESTERN TRANSPORTATION COMPANY.

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AND THE NEW YORK CENTRAL R. R. CO.

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FLOUR, WHEAT, CORN, OATS, WOOL, ASHES, HIDES,

And all other products of Michigan, at prices much below those of former years. Our lines are the most direct and the most economical.

THE MODEL LINES OF THE COUNTRY.
J. L. HURD & CO.,
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HAS won for itself such a renown for the cure of every variety of Throat and Lung Complaint, that it is entirely unnecessary for us to recount the evidence of its virtues, wherever it has been employed. As it has long been in constant use throughout this section, we need not do more than assure the people its quality is kept up to the best it has ever been, and that it may be relied on to do for their relief all it has ever been found to do.

AYER'S CATHARTIC PILLS,

For all the Purposes of a Purgative Medicine.

FOR COSTIVENESS;
FOR THE CURE OF DYSPEPSIA;
FOR JAUNDICE;
FOR THE CURE OF INDIGESTION;
FOR HEADACHE;
FOR THE CURE OF DYSENTERY;
FOR A PAINFUL STOMACH;
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FOR THE CURE OF TETTER, TUNGERS AND SALT RHEUM;
FOR THE CURE OF SCALD HEAD;
FOR THE CURE OF GOUT;
FOR A DINNER PILL;
FOR THE CURE OF NEURALGIA;
FOR PURIFYING THE BLOOD.

They are sugar-coated, so that the most sensitive can take them pleasantly, and they are the best aperient in the world for all the purposes of a family.

Price 25 cents per Box; Five Boxes for \$1.

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Do not be put off by unprincipled dealers with other preparations they make more profit on. Demand AYER'S, and take no others. The sick want the best aid for them, and they should have it.

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All our remedies are for sale by J. S. Farrand, Detroit, and by all Druggists every where. may3m

THE GREAT PREMIUM MOWER.

THE AULTMAN AND MILLER

MOWING MACHINE.

BUGEYE MOWER.

AULTMAN & MILLER'S

PATENT.

PATENTED BY A. AULTMAN & L. MILLER.
To which was awarded the First Premium,
a Gold Medal and Diploma, at the
Great National Trial at
Syracuse, N. Y.,
July, 1857.

MANUFACTURED BY
C. AULTMAN & Co.,
Canton, Stark County, Ohio.

After tolling and experimenting for many years, we have finally succeeded in getting up a machine that is perfectly adapted to cut both Grain and Grass. The public are already aware that we have been manufacturing a Mowing Machine that has been unrivaled in any market.

First—We have a perfect Mower, having several advantages over all other Mowers, and no disadvantages, which will be readily seen by examining some of its points of excellence.

Second—We have a perfect Reaper, which has all the advantages of a single machine, and the only true way of delivering the grain at the side of the machine.

We have a cutter bar and platform for cutting grain, independent of the Mower, so that in changing the Mower into a Reaper, we just uncouple the cutter bar at the hinge and couple the Reeper platform which renders the machine complete for cutting Grain.

In having two cutter bars, one for grass and the other for grain, each is perfectly adapted for doing the work it is designed to do, thus avoiding the great difficulty heretofore existing in combining machines, in having the cutter bar either too long for grass or too short for grain.

This machine has been thoroughly tried, both in grass and grain, having had a number in use the past harvest. The following are some of its points of excellence as a Mower:—

1st. It has no one pound of side draft.
2d. It has no more weight on the tongue, or horses' neck, than a wagon.

3d. Its draft is only 275 pounds—so reported by the Committee at the Ohio State Fair, 1857.

4th. It has two wheels with serve as drivers.

5th. It has an adjustable cutter bar and accommodates itself to an uneven surface of the ground.

6th. The cutter bar is in front of the driving wheels and the seat in the rear. Thus enabling the driver to see the position of the cutters, without his having to drive. Also, avoiding all danger of falling into the knives.

7th. The driving wheels have no cogs on them, but drive the gearing by means of pulleys and ratchets.

8th. By means of these pulleys and ratchets, the knives cease to vibrate in backing the machine.

9th. The driver, while in his seat, can see every bolt, box, and all the gearing when the machine is in motion.

10th. The gearing is all permanently in place, and in the centre of the frame, distant from the driving wheels thus avoiding all tendency of its being clogged up with mud or dirt thrown up by the drivers.

11th. The cutter bar being attached to the machine by means of hinges, can be folded up on top of the machine without removing the connecting rod, knife or platform cleaner.

12th. The pulleys on the driving wheels can readily be thrown out of gear, and by folding the cutter bar as above stated, renders the machine as portable as a common cart.

13th. There is a wheel on the shoe next the gearing in front of the cutter bar, thus avoiding all tendency of clogging at the rear shoe, in passing over cut grass.

14th. The shoe is only 2 1/2 inches wide, and the last knife cuts no more than any other, therefore leaving no ridge or high stubble at the end of each swath.

15th. The cutter bar can be raised or lowered by means of an adjustable steel spring shoe at off end, and a slot in the rear shoe where the wheel is attached.

16th. There are no nuts or screws at the connecting rod, which are always liable to cause more or less trouble by jerking loose, but use a gib with a spring pin and a rubber key, thereby avoiding all possible chance of shaking loose.

Points of excellence as a Reaper:—

1st. It has all the advantages that the Mower has in the gearing, connecting rod, and draft for the horses.

2d. The grain is delivered at the side, so that a whole field can be cut without taking any of it up.

3d. The driver sits in the same place as on the Mower, affording him a free view of the operations of the machine.

4th. The raker stands at the rear of the platform which is the best position for delivering the grain.

5th. By means of this position, the grain is thrown to the side, then delivered it in the rear; thus avoiding the difficulty of dragging the grain from one gavel to another.

6th. The platform can readily be raised or lowered to suit all kinds of grain or ground, by means of two screws, at rear side, and slot at off side, when off platform.

N. STEELE is the travelling agent, and is now soliciting orders in this State.
All letters of inquiry, or requesting further information, may be addressed to
J. C. ARNOLD,
Dexter, General Agent, or
BLOSS & CO., Special Agents, Detroit.

IMPORTED STONE PLOVER!

THE HIGHEST AND BEST BRED BLOOD HORSE IN AMERICA,

IS OFFERED TO THE BREEDERS OF MICHIGAN and other States at the very low price of THIRTY DOLLARS the season; all fees to the groom included.

The second season for this horse in this State commenced on the first of April, and will end with the 30th of July. He will stand at:

Cooper's Corners, two miles from Plymouth, Wayne county, Mich.; 10 miles from Ann Arbor; 10 miles from Ypsilanti; 18 miles from Dexter, and 22 miles from Detroit.

Mares sent from a distance will be taken and kept on the usual terms, but the subscriber will not in any case be responsible for accidents or escapes, should any occur.

Terms—The money for service to be paid at time of first trial, or an approved note to be given for the amount.

Pedigree and Description.
STONE PLOVER was bred by the Right Honorable Earl Spencer, and was foaled in the spring of 1850, and was sold to Count Balthazar at his annual sale of yearlings in 1851, and was never out of the possession of the Count until sold to the present owner, who made one season with him in England, previous to his importation.

This horse was sired by the renowned Cotherstone, winner of the Derby, out of Wyrneck, by Slane, the sire of Merry Monarch, winner of the Derby, and Princess, winner of the Oaks, and also of many other distinguished winners. Cotherstone was bred by the celebrated Mr. Bowes, and was by Touchstone, out of Emma, by Whisker, she being the dam of imported Trustee. Whisker was of the most celebrated family in England for stoutness, he being one brother to Whalebone, Woful, Wire, all winners and the sires of winners, at long distances. Touchstone was a grandson of Whalebone.

Stone Plover is a magnificent bay horse, 16 1/2 hands in height, on particular, short, strong legs, and great length, strength and substance, and is warranted as a sure foal getter. Independent of his great racing qualities, he is well calculated to elevate the character of all half bred stock, and to become the sire of the most valuable horses, which will be remarkable for size, spirit, endurance, and great action. He is himself of the most beautiful color, fine symmetry, great size, grand and majestic action and carriage, all of which is inherited from ancestors the most renowned in the annals of the Turf of Great Britain. He is free from defects, and is marked with neither curbed hocks, splints, spavins, ringbones, twisted ankles, upright joints, or any other imperfection, and perfectly sound in his limbs. For further particulars address the subscriber,
Plymouth, April 16, 1859. 18-12w THOMAS WILLIAMS, Plymouth, Michigan.

THE TROTTING STALLION

HAMBLETONIAN,

Will stand for mares the ensuing Season commencing April 4th, as follows:

At JOHN CLARK'S, Milford, Mondays and Tuesday;

At JOHN HATHAN'S, New Hudson, Wednesdays;

At SAM'L LATHROP'S, Northville, Tuesdays;

At JAMES ROOT'S, Plymouth, Fridays and Saturdays;

Leaving each place at 5 o'clock P. M.

From the general complaint of poor crops last year I have concluded to reduce the price of my horse for this season.

Terms—\$10 the Season; \$15 to Insure.
Season money to be paid when the Mare is first served, or a good note given for the amount. Persons, parting with mares before foaling time will be held responsible for the season money. All mares not regularly returned will be held by the season. Pasture furnished at fifty cents per week. All accidents and escapes at the owner's risk. Season to close on the first of August, 1859. Grain will be received for insurance money, delivered at my farm on or before the first day of February 1860, at Detroit prices.

HAMBLETONIAN was awarded the First Premium at the Oakland County Fair, October, 1857. At the State Fair in Detroit last fall his colts took more premiums than any other Stallion in the State.

Pedigree of Hambletonian.
HAMBLETONIAN was sired by Geo. Barney's horse Henry, of Whitehall, Washington county, New York—he by Imported Signal, out of a Messenger mare. Hambletonian's dam by Mambrino, grandam Bishop's Hambletonian who was sired by Imported Messenger. Hambletonian is 15 1/2 hand high, weighs 1150 pounds; possessing fine action, with great powers of endurance; untrained, but shows good evidence of speed. Hambletonian is a beautiful bloodbay, black mane, tail and limbs, without a white hair upon him, and for style can not be excelled by any horse in the State.
F. E. ELDERED, Detroit.

THE YOUNG TROTTER STALLION,
KEMBLE JACKSON,

Will stand for mares the coming season, at Spring Brook Farm, adjoining the Village of Farmington, Oakland county Mich., commencing April 4th.

Owing to the extreme hard times among farmers—loss of crops the past season, &c., I have concluded to reduce the price